

**ИЗБОРНОМ И НАСТАВНО-НАУЧНОМ ВЕЋУ  
ФИЗИЧКОГ ФАКУЛТЕТА УНИВЕРЗИТЕТА У БЕОГРАДУ**

На IX редовној седници Изборног наставно-научног већа Физичког факултета Универзитета у Београду одржаног 28. јуна 2017. године, одређени смо у Комисију за припрему извештаја по расписаном конкурс за избор једног РЕДОВНОГ ПРОФЕСОРА за ужу научну област ПРИМЕЊЕНА ФИЗИКА на Физичком факултету Универзитета у Београду. У том својству подносимо Већу следећи

**РЕФЕРАТ**

На конкурс за избор једног РЕДОВНОГ ПРОФЕСОРА за ужу научну област ПРИМЕЊЕНА ФИЗИКА на Физичком факултету Универзитета у Београду, који је објављен у листу Националне службе за запошљавање „ПОСЛОВИ“ од 19.07.2017. године, јавио се један кандидат, др Бећко Касалица, ванредни професор Физичког факултета Универзитета у Београду.

**БИОГРАФИЈА, НАСТАВНА И НАУЧНА АКТИВНОСТ КАНДИДАТА**

**1. Основни биографски подаци**

Проф. др. Бећко Касалица је рођен у Цетињу 14.07.1961. године. Основну школу и гимназију је завршио у Цетињу. Дипломирао, специјализирао, магистрирао и докторирао на Физичком факултету Универзитета у Београду. Дипломирао је на смеру Експериментална физика, 1989. године са темом „*Осцилаторни спектри двојних фосфата кобалта*“ на Физици чврстог стања код проф. Милене Напијало. Специјализирао 1995.

год. са темом *"Оптичке особине двојног сулфата магнезијума и кобалта  $MgCo(SO_4)_2$ "* на Физици чврстог стања код проф. Милене Напијало. Магистрирао је 1997. године са тезом *"Испитивање галванолуминесцентних ефеката на оксидним слојевима добијеним анодизацијом алуминијума у оксалној киселини"* на Примењеној физици код проф. Љубише Зековића. Докторирао је 2006. год. са дисертацијом *"Динамика луминесцентних процеса танких оксидних слојева добијених анодизацијом алуминијума"* на Примењеној физици код проф. Љубише Зековића.

Од 1992. године до 1997. године. др. Бећко Касалица је радио као стручни сарадник на Физичком факултету Универзитета у Београду. Од 1997. године кандидат ради као асистент на истом факултету на предметима Термотехника, Електрична мерења и Метрологија.

Од 2007. године. др. Бећко Касалица ради као доцент на Физичком факултету Универзитета у Београду на предметима Геометријска оптика и оптички иструменти, Мерни контролни системи у индустрији и енергетици, Акустика и Термотехника (од 2012).

Од 2013. године. др. Бећко Касалица ради као ванредни професор на Физичком факултету Универзитета у Београду на предметима: Термотехника, Метрологија, Метрологија и стандардизација, Геометријска оптика и оптички иструменти и Акустика.

## **2. Наставна активност**

Као асистент на Физичком факултету у Београду др Бећко Касалица је учествовао у извођењу наставе на следећим предметима студентима физике: Метрологија, Метрологија и стандардизација и Електрична мерења. После избора у звање доцента држи експерименталне вежбе на предметима Метрологија, Метрологија и стандардизација, Електрична мерења, као и предавања на предметима: Геометријска оптика и оптички иструменти, Мерни контролни системи у индустрији и енергетици, Акустика, и Термотехника (од 2012). У периоду избора у звање ванредног професора држи: експерименталне вежбе на предметима Метрологија, Метрологија и стандардизација (до 2015), Електрична мерења (до 2016), као и предавања на предметима: Термотехника,

Метрологија (од 2016), Метрологија и стандардизација (од 2016), Геометријска оптика и оптички инструменти и Акустика. На докторским студијама је ангажован на предмету Мерење ниских светлосних интензитета. Проф. др Бећко Касалица је коаутор Универзитетског уџбеника “Увод у акустику” ИСБН 978-86-84539-18-4. Проф. др Бећко Касалица руководио је изработом једне докторске дисертације, а тренутно је ментор докторских студија за три кандидата.

### **3. Научна активност**

#### **3.1. Публикације**

Резултати научног рада др Бећка Касалице су публиковани у 31 раду у међународним часописима (ИФ > 1), од тога 4 након предходног избора<sup>1</sup>. Такође је имао велики број саопштења на међународним скуповима и скуповима националног значаја који су штампани у целини или у изводу. Укупан импакт фактор публикованих радова је 79.084. Број цитата наведених радова без аутоцитата и цитата коаутора је преко 283, а са цитатима коаутора преко 392<sup>2</sup>.

#### **3.2. Учесће на научним пројектима и међународна сарадња**

Др Бећко Касалица је био учесник више научноистраживачких и иновационих пројеката Министарства за науку: “Луминесцентна и фототермална својства ласерских кристала под високим притисцима, оксидних филмова, полупроводника и биолошких система” (2002-2004), “Оптичке, механичке и проводне особине нанотуба” (2004-2005), “Пирометарски систем за мерење и контролу температуре загрејаних тела са компензацијом утицаја зрачења околине” (2005-2006), “Пирометарски фиброоптички систем за мерење и контролу просторне расподеле температуре у ложиштима котлова термоелектране Никола Тесла” (2006-2007), “Угљеничне и неорганске нанотубе” (2006-2010). Поред тога кандидат је био и на ФП6 пројекту “Reinforcing nanostructure laboratory” (2007-2008). Тренутно ради на пројекту “Графитне и неорганске наноструктуре ниске димензионалности” (од 2011).

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<sup>1</sup> Након објављивања конкурса и у току писања овог реферата кандидат је објавио још један рад у водећем међународном часопису.

<sup>2</sup> Scopus 11.09.2017.

#### 4. Преглед научних резултата

Научна активност др. Бећка Касалице одвија се у оквиру две засебне целине: **физике кондезованог стања материје и примењене физике**. У области кондезованог стања кандидат се бави истраживањем оксидних слојева добијених анодизацијом „вентилних метала“ у погодним електролитима, са посебним освртом на њихове луминесцентне феномене. Кандидат је посебан допринос дао у пројектовању и изградњи широкопојасних оптичко-детекционих система за испитивање динамике луминесцентних процеса у току саме анодизације. У области Примењене физике др. Бећко Касалица се бави метрологијом температуре и светлосних величина. Кандидат је учествовао у пројектовању и изради радијационих пирометара секундарних и радних еталона температуре, чијом реализацијом Лабораторија за оптичку пирометрију Физичког факултета Универзитета у Београду постала акредитована од стране АТС-а (Акредитационо тело Србије) за преглед и еталонирање мерила температуре. Кандидат је такође учествовао у формирању Лабораторије за спектрофотометрију Физичког факултета Универзитета у Београду која је акредитована од стране АТС-а за преглед и еталонирање спектрофотометара, фотометара ЕЛИСА читача, биохемијских анализатора и атомских апсорпционих спектрофотометара.

Др Бећко Касалица се бави проучавањем оксидних структура које се добијају анодизацијом алуминијума као и других „вентилних метала“. Значајне технолошке апликације су довеле до константног раста интересовања за ове оксидне структуре, које су једне од структура које се највише проучавају у оквиру науке о материјалима, физике чврстог стања. Најважнији допринос Др Бећка Касалице је у разумевању природе галванолуминесцентних феномена као и феномена плазма електролитичке оксидације.

У последње време кандидат углавном се бави проучавањем, феномена Плазма електролитичке оксидације (ПЕО), као и спектрофотометријским мерењима везаним за оптичко-детекционе системе, оптичку пирометрију и биофизику.

ПЕО вентилних метала и оксидних структура које се добијају овим процесом у разним електролитима имају изванредну отпорност на хабање, трење, корозију, термичке и електричне особине што чини ове површине погодним за примену у текстилној

индустрији, ваздухопловству, аутомобилској индустрији, биомедицинским уређајима итд. У својим истраживањем ПЕО феномена користи се методама: оптичке емисионе спектроскопије, електронске микроскопије (СЕМ), микроскопом атомских сила (АФМ) и анализом процеса у реалном времену. Добијени резултати су дали значајан допринос разумевању ПЕО феномена, а такође је показано да је оптичка емисиона спектроскопија веома погодна техника за карактеризацију плазме која се јавља у току електролитичке оксидације. Посебна пажња је посвећена карактеризацији оксидних структура које би се добиле анодизацијом вентилних метала (Al, Ti, Ta).

Нови приступ спектрофотометријским мерењима као и њихова анализа, могу се применити у оптичкој пирометрији, као и за проучавање феномена у биофизици.

### **Приказ радова публикованих у водећим међународним часописима**

#### ***1. LED-based Vis-NIR spectrally tunable light source - the optimization algorithm***

У раду [1] представљена је аналитичка метода за одређивање доприноса изабраних ЛЕД диода као извора светлости у опонашању спектра „црног тела“ и њихову примену у оптичкој пирометрији.

#### ***2. The mechanism of evolution of microdischarges at the beginning of the PEO process on aluminum***

У раду [2] представљен је нови приступ механизму ПЕО, који је по својој природи сложен физичко-хемијски процес, који још увек има велики број непознаница.

#### ***3. Investigation of long-duration plasma electrolytic oxidation of aluminum by means of optical spectroscopy***

У раду [3] је испитивана ПЕО алуминијума после вишечасовног ПЕО процеса. Анализом спектралних линија алуминијума, одређена је температура плазме, око 8000 К на почетку процеса, а након 60 минута од почетка процеса 3000–4000 К. Састав плазме која садржи алуминијум, кисеоник, водоник и натријум, под претпоставком локалне топлотне равнотеже, израчунат је за температуре до 11000 К, да би се објасниле добијене спектралне карактеристике.

#### ***4. Galvanoluminescence of oxide films during the anodization of titanium***

Истраживања публикована у раду [4] испитују луминесценцију тантала у режиму константне струје у воденим растворима фосфорне и оксалне киселине. Слаба анодна луминесценција у току анодизације је повезана са постојањем дефеката у формираним оксидним слојевима. Показано је да интензитет луминесценције расте са порастом дефеката на анодизованим узорцима тантала, повећаном густином струје и температуром електролита. Добијени луминесцентни спектри указују на постојање широких луминесцентних трака у видљивој и блиској инфрацрвеној области спектра.

#### ***5. Anomalous sodium doublet D2/D1 spectral line intensity ratio – a manifestation of CCD's presaturation effect***

У раду [5] дати су резултати појаве аномалије дублета Д2/Д1, натријумових линија које су последица нелинеарности детекције ЦЦД камере у случају тачкастих извора светлости. Резултати указују да је добијена нелинеарност у детекцији ЦЦД камере функција времена експозиције. Добијени резултати указују да ако је време експозиције веће то је и аномалија у детекцији већа.

#### ***6. Luminescence during the anodization of zirconium***

У раду [6] дати су резултати испитивања оксидних слојева добијених анодизацијом титанијума у раствору натријум метасиликату у режиму ПЕО и густини струје од 200 mA/cm<sup>2</sup>. Користећи интезитет детектованих Ti линија на 398.18 nm и 501.42 nm израчуната је и електронска температура  $T_e$  у овом процесу и она износи (3700 ± 500) K.

#### ***7. Characterization of the plasma electrolytic oxidation of titanium in sodium metasilicate***

У раду [7] приказани су резултати луминесцентних мерења која се јављају током анодизације цирконијума у растворима оксалне и 12–волфрамсилицијумске киселине. Добијени резултати указују на јак утицај предтретмана површине узорка, као и густине струје на интензитет луминесције.

#### ***8. Luminescence during anodization of magnesium alloy AZ31***

У раду [8] испитивана је луминесценција у току анодизације магнезијумове легуре AZ31 у воденом раствору који садржи 4 g/L Na<sub>2</sub>SiO<sub>3</sub>·5H<sub>2</sub>O + 4 g/L KOH. Галванолуминесцентни спектар има три спектрална максимума на око 430 nm, 600 nm и 780

nm. Детаљно је извршена и карактеризација микро пражњења применом оптичке емисионе спектроскопије и анализом процеса у реалном времену.

#### ***9. Luminescence of the $B\ 2\Sigma^- - X\ 2\Sigma^+$ band system of AlO during plasma electrolytic oxidation of aluminum***

У раду [9] је анализирана плазма електролитичка оксидација алуминијума, анализирајући луминесцентни спектар у опсегу од 500 nm до 556 nm, који је приписан  $v' - v'' = -1$  и  $-2$  прелазима  $B\ 2\Sigma^+ - X\ 2\Sigma^+$  молекула AlO. Температура плазме је процењена на  $8000\text{ K} \pm 2000\text{ K}$ . Такође је израчунат састав плазме која садржи алуминијум и кисеоник под претпоставком термодинамичке равнотеже у температурном опсегу до 11000 K.

#### ***10. Identification of the $C\ 2\Pi - X\ 2\Sigma^+$ band system of AlO in the ultraviolet galvanoluminescence obtained during aluminum anodization***

У раду [10] су по први пут презентирани резултати галванолуминесцентних мерења у УВ региону приликом анодизације алуминијума одгрејаног на  $525\text{ }^\circ\text{C}$ . Интензиван максимум на  $31900\text{ cm}^{-1}$  је приписан прелазима између вибрационих нивоа  $C^2\Pi \rightarrow X^2\Sigma^+$  молекула AlO.

#### ***11. Preparation of silicate tungsten bronzes on aluminum by plasma electrolytic oxidation process in 12-tungstosilicic acid***

У раду [11] је испитивана плазма електролитичка оксидација алуминијума у 12–волфрамсилицијумовој киселини. Показано је да су добијене оксидне површине волфрамске бронзе.

#### ***12. Matrix of rectangular pores obtained by AFM nanoindentation and electrolytic oxidation of Al***

У раду [12] је показано да се нано поре правоугаоног облика могу добити на алуминијуму електролитичком оксидацијом применом наноиндентације помоћу АФМ микроскопа. Периоди нанопора у опсегу од 50 nm до 370 nm добијени су у три различита електролита: воденим растворима сумпорне, фосфорне и оксалне киселине.

#### ***13. Photoluminescent properties of barrier anodic oxide films on***

У раду [13] је испитивана фотолуминесценција баријерних анодних оксидних слојева добијених у органским и неорганским електролитима. Експериментални подаци указују да фотолуминесценција потиче од два врсте луминесцентних центара који су везани са кисеоничним вакансијама у оксидном слоју.

#### ***14. Characterization of the plasma electrolytic oxidation of aluminium in sodium tungstate***

Морфологија, састав и микро тврдоћа оксидних слојева формираних током плазме анодизације алуминијума у натријум волфрамату су испитивани у раду [14]. Оксидне површине су окарактерисане оптичком емисионом спектроскопијом, AFM, SEM-EDS и XRD. Оптички емисиони спектар микропражњења има неколико интензивних максимума изазваних електронским прелазим у Al, W, Na, O, H атомима.

#### ***15. Luminescence properties of oxide films formed by anodization of aluminum in 12-tungstophosphoric acid***

У раду [15] је истраживана луминесценција оксидних слојева добијених анодизацијом алуминијума у 12-волфрамфосфорној киселини. Детаљно су испитане галванолуминесценте и фотолуминесцентне особине, као и луминесцентне особине у току плазма електролитичке оксидације.

#### ***16. Large single crystals of isomorphous hexaaquametal(II) D-camphor10- sulfonates***

У раду [16] дати су резултати карактеризације новосинтетизованих кристала D-камфор-10-сулфоната са Mn, Fe и Co. Добијени кристали су анализирани између осталог и са ИЦ и УВ-ВИС спектроскопијом. На основу добијених спектра може се закључити да њихова спектрална својства дају потенцијалну могућност њихове употребе као оптички материјали.

#### ***17. The effect of annealing on the photoluminescent and optical properties of porous anodic alumina films formed in sulfamic acid***

У раду [17] су презентирани резултати истраживања фотолуминесценције (ФЛ) порозних оксидних слојева добијених анодизацијом алуминијума у сулфаминској киселини. Широке емисионе ФЛ траке са два спектрална максимума у опсегу од 320 nm до 600 nm се могу запазити. Један је на константној таласној дужини од 460 nm, док се други помера од 390 nm до 475 nm, у зависности од екситационе таласне дужине.



Одгревање и хемијски третман формираних оксидних слојева указује на два различита ФЛ центра. Један ФЛ центар се налазу у зидовима пора и формиран је апсорпцијом воде или ОН група. Други ФЛ центар је повезан са оптичким прелазима у кисеоничним вакансијама.

#### ***18. Electronic transitions during plasma electrolytic oxidation of aluminum***

У раду [18] је испитивана луминесценција током плазма електролитичке оксидације алуминијума у борној киселини и амонијум тартарату. На луминесцентним спектрима се могу уочити неколико интензивних емисионих трака које указују да је луминесценција последица електронских прелаза у атомима Al, O, H и Na.

#### ***19. Metrological assurance of biodevices: The new method of calibration of biochemical analyzers***

У раду [19] је приказана метода која омогућава калибрацију проточних спектрофотометара и биохемијских анализатора применом органских боја.

#### ***20. Structural and luminescence characterization of porous anodic oxide films on aluminum formed in sulfamic acid solution***

У раду [20] су примењене АФМ микроскопија и луминесценте методе (галванолуминесценте и фотолуминесценте) за карактеризацију порозних оксидних слојева добијених анодизацијом алуминијума у сулфаминској киселини. Добијени резултати указују да добијени оксидни слојеви не поседују високо уређену структуру која је неопходна за примену ових слојева у нанотехнологијама.

#### ***21. Galvanoluminescence properties of porous oxide films formed by anodization of aluminum in malonic acid***

У раду [21] је испитиван утицај услова анодизације на интензитет галванолуминесценције и облик спектра порозних оксидних слојева добијених у малонској киселини. Показано је да се два широка спектрална максимума могу уочити у спектралном опсегу од 400 nm до 700 nm Положај и релативан однос максимума зависи од услова анодизације. ЕДС (Energy Disperse Spectroscopy) и АТР-ФТИР (Attenuated Total Reflectance - Fourier Transform Infrared Spectroscopy) спектроскопија указује да су карбоксилни јони луминесцентни центри, као и код других органских електролита.

## ***22. Effect of aluminum annealing on the galvanoluminescence properties of anodic oxide films formed in organic electrolytes***

У раду [22] је испитиван утицај одгревања површине алуминијума на галванолуминесценте особине анодних оксидних слојева добијених у органским електролитима. Спектрална мерења показују на два типа луминесцентних центара, карбоксилни јони уграђени у оксидни слој и молекули  $\text{AlH}$ ,  $\text{AlO}$ ,  $\text{Al}_2$  и  $\text{AlH}_2$ , такође формираних током анодизације.

## ***23. Nature of galvanoluminescence of oxide films formed by aluminum anodization in inorganic electrolytes***

У раду [23] приказани су резултати галванолуминесцентних мерења оксидних слојева добијених анодизацијом алуминијумских узорака претходно одгрејаних на  $550\text{ }^{\circ}\text{C}$  у неорганским електролитима. Спектрална мерења показују да је галванолуминесценција проузрокована прелазима у молекулима  $\text{AlH}$ ,  $\text{AlO}$ ,  $\text{Al}_2$  и  $\text{AlH}_2$ , вероватно локализованим у порам кристала гама алумине.

## ***24. The galvanoluminescence spectra of barrier oxide films on aluminum formed in organic electrolytes***

У раду [24] су приказани резултати галванолуминесцентних спектралних мерења баријерних оксидних слојева добијених анодизацијом алуминијума у органским електролитима. Детаљно је испитиван утицај параметара анодизације на облик спектра. Добијени резултати указују да су центри луминесценције карбоксилни јони уграђени у оксидни слој у току процеса анодизације.

## ***25. The galvanoluminescence spectra of barrier oxide films on aluminum formed in inorganic electrolytes***

У раду [25] су по први пут презентирани резултати мерења галванолуминесцентних спектра баријерних оксидних слојева добијених анодизацијом алуминијума у неорганским електролитима (борна киселина + боракс и амонијум борат). На галванолуминесцентним спектрима се могу уочити два спектрална максимума. Први је на око  $430\text{ nm}$  док положај другог спектралног максимума зависи од напона анодизације и помера се од  $600\text{ nm}$  (за напоне анодизације до  $600\text{ V}$ ) до  $680\text{ nm}$  за напон од  $275\text{ V}$ . Поређење добијених резултата са галванолуминесцентним спектрима порозних оксидних

слојева добијених у неорганским електролитима указује на исти механизам галванолуминесценције у свим неорганским електролитима.

#### ***26. Light-emitting-diode-based light source for calibration of an intensified charge-coupled device detection system intended for galvanoluminescence measurements***

У раду [26] је приказана реализација стабилног извора светлости који се састоји од три LED диоде са различитим спектралним карактеристикама и две интенграционе сфере које мешају и смањују интензитет светлости. Реализовани систем омогућава калибрацију широкопојасних оптичко детекционих система са ICCD (Intensified Couple Charge Device) детектором, који су намењени за временски разложена галванолуминесцентна мерења. Детаљно је описана процедура калибрације извора светлости као и ICCD детекционог система. По први пут су извршена спектрална галванолуминесцентна мерења током анодизације алуминијума у електролитима који формирају порозне оксидне слојеве.

#### ***27. The influence of aluminum treatment and anodizing conditions on the galvanoluminescence properties of porous oxide films formed in sulfuric acid solution***

У раду [27] је први пут показано да се галванолуминесценција јавља приликом анодизације алуминијума у сумпорној киселини. Показано је да интензитет галванолуминесценције јако зависи од претретмана површине алуминијума и услова анодизације. Површинске нечистоће, као и унутрашње нечистоће главни су извор галванолуминесценције у сумпорној киселини, као и код других неорганских електролита који формирају порозне оксидне слојеве.

#### ***28. Galvanoluminescence of porous oxide films formed by anodization of aluminum in chromic acid solution***

У раду [28] је први пут показано да се галванолуминесценција јавља приликом анодизације алуминијума у хромној киселини. Показано је да су површинске нечистоће, као и унутрашње нечистоће главни извор галванолуминесценције порозних оксидних слојева добијених анодизацијом алуминијума у хромној киселини. Такође је показано да галванолуминесценција порозних оксидних слојева добијених анодизацијом алуминијума у хромној киселини зависи од услова анодизације и да се интензивнија галванолуминесценција добија за ниже температуре и мање концентрације електролита, као и за веће густине струје анодизације. Утврђено је да се на галванолуминесцентим

спектрима могу уочити два спектрална максимума на око 425 nm и 595 nm, чији релативни однос не зависи од напона анодизације у потенциостатском режиму, али зависи од температуре електролита.

### ***29. The influence of anodizing conditions on the galvanoluminescence spectra of porous oxide films on aluminum formed in phosphoric acid solution***

У раду [29] су приказане методе које омогућавају снимање галванолуминесцентних спектра порозних оксидних слојева добијених анодизацијом алуминијума у фосфорној киселини у галваностатском и потенциостатском режиму, у стационарном стању. На галванолуминесцентним спектрима се могу уочити два спектрална максимума на око 425 nm и 595 nm, чији релативни однос не зависи од густине струје анодизације (у галваностатском режиму) и напона анодизације (у потенциостатском режиму), али зависи од температуре и концентрације електролита.

### ***30. Galvanoluminescence of oxide films formed by anodization of aluminum in phosphoric acid***

У раду [30] је показано да су површинске нечистоће, као и унутрашње нечистоће главни извор галванолуминесценције порозних оксидних слојева добијених анодизацијом алуминијума у фосфорној киселини. Такође је показано да галванолуминесценција порозних оксидних слојева добијених анодизацијом алуминијума у фосфорној киселини зависи од услова анодизације и да се интензивнија галванолуминесценција добија за ниже температуре и мање концентрације електролита, као и за веће густине струје анодизације.

### ***31. Galvanoluminescence spectra of porous oxide layers formed by aluminum anodization in oxalic acid***

У раду [31] је показано да галванолуминесцентне спектре порозних оксидних слојева добијених анодизацијом алуминијума у оксалној киселини карактеришу два широка спектрална максимума. Максимуми се налазе у видљивој области на таласним дужинама од 456 nm и 485 nm. Максимуми потичу од два типа луминесцентних центара и то оксалатних јона ( $C_2O_4^{2-}$ ) и карбоксилних јона ( $COO^-$ ), који се у оксидни слој уграђују током процеса анодизације. Добијени резултати су потврдили да облик спектра не зависи од температурског и хемијског предтретмана узорка, већ само од услова анодизације.

## 5. СПИСАК ПУБЛИКАЦИЈА

### A. Радови у међународним часописима

#### Радови у водећим међународним часописима (импакт фактор >1)

##### ***1. LED-based Vis-NIR spectrally tunable light source - the optimization algorithm***

Lukovic Milentije, Lukovic Vanja , Belca Ivan, Kasalica Becko, Stanimirovic Ivan, Vacic Milos

Journal of the European Optical Society-Rapid Publications, (2016),

**DOI:** 10.1186/s41476-016-0021-9 (**IF=1.199**)

##### ***2. The mechanism of evolution of microdischarges at the beginning of the PEO process on aluminum***

Kasalica Becko V Radic-Peric Jelena B Peric Miljenko N Petkovic-Benazzouz Marija M Belca Ivan D Sarvan Mirjana Z

Surface & Coatings Technology, (2016), vol. 298 br. , str. 24-32 (**IF=2.589**)

##### ***3. Investigation of long-duration plasma electrolytic oxidation of aluminum by means of optical spectroscopy***

M. Sarvan, J. Radić–Perić, B. Kasalica, I. Belča, S. Stojadinović, M. Perić,

Surface & Coatings Technology 254 (2014) 270–276. (**IF 2.199**)

##### ***4. Galvanoluminescence of oxide films during the anodization of titanium***

S. Stojadinović, R. Vasilić, M. Petković, I. Belča, B. Kasalica, Lj. Zeković,

Electrochemistry Communications 35 (2013) 22–25. (**IF 4.847**)

**5. *Anomalous sodium doublet D2/D1 spectral line intensity ratio – a manifestation of CCD's presaturation effect***

Bečko Kasalica, Stevan Stojadinović, Ivan Belča, Mirjana Sarvan, Ljubiša Zeković, Jelena Radić-Perić

Journal of Analytical Atomic Spectrometry., 2013, Advance Article

**DOI:** 10.1039/C2JA30239J, Paper (**IF = 3.22**)

**6. *Characterization of the plasma electrolytic oxidation of titanium in sodium metasilicate***

S. Stojadinović, R. Vasilić, M. Petković, B. Kasalica, I. Belča, A. Žekić, Lj. Zeković

*Applied Surface Science*, 265 (2013) 226–233. (**IF = 2.1**)

**7. *Luminescence during the anodization of zirconium***

Stojadinović, S., Vasilić, R., Petković, M., Belča, I., Kasalica, B., Perić, M., Zeković, L.

*Electrochimica Acta* 79 , (2012 g.) (**IF = 3.82**)

**8. *Luminescence during anodization of magnesium alloy AZ31***

Stojadinović, S., Vasilić, R., Petković, M., Belča, I., Kasalica, B., Perić, M., Zeković, L.

*Electrochimica Acta* 59 , (2012 g.) (**IF = 3.82**)

**9. *Luminescence of the  $B\ 2\Sigma^- + X\ 2\Sigma^+$  band system of AlO during plasma electrolytic oxidation of aluminum***

Stojadinović, S., Perić, M., Petković, M., Vasilić, R., Kasalica, B., Belča, I., Radić-Perić, J.

*Electrochimica Acta* 56, (2011 g.) (**IF = 3.82**)

**10. *Identification of the  $C\ 2\Pi^- + X\ 2\Sigma^+$  band system of AlO in the ultraviolet galvanoluminescence obtained during aluminum anodization***

Sarvan, M., Perić, M., Zeković, L., Stojadinović, S., Belča, I., Petković, M., Kasalica, B.

Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy 81 (2011 g.)

(*IF* = 2.1)

***11. Preparation of silicate tungsten bronzes on aluminum by plasma electrolytic oxidation process in 12-tungstosilicic acid***

Petković, M., Stojadinović, S., Vasilic, R., Belca, I., Nedić, Z., Kasalica, B., Mioč, U.B.

Applied Surface Science 257 (2011 g.) (*IF* = 2.1)

***12. Matrix of rectangular pores obtained by AFM nanoindentation and electrolytic oxidation of Al***

Belca, I.D., Petkovic, M., Stojadinovic, S., Kasalica, B., Belca, J.S., Zekovic, Lj.D.

Applied Physics A: Materials Science and Processing 104 (1) , (2011 g.) (*IF* = 1.63)

***13. Photoluminescent properties of barrier anodic oxide films on aluminum***

Stojadinovic, S., Vasilic, R., Nedic, Z., Kasalica, B., Belca, I., Zekovic, L.

Thin Solid Films 519 (2011 g.) (*IF* = 1.89)

***14. Characterization of the plasma electrolytic oxidation of aluminium in sodium tungstate***

Stojadinovic, S., Vasilic, R., Belca, I., Petkovic, M., Kasalica, B., Nedic, Z., Zekovic, L.

Corrosion Science 52 (2010 g.) (*IF* = 3.27)

***15. Luminescence properties of oxide films formed by anodization of aluminum in 12-tungstophosphoric acid***

Stojadinovic, S., Vasilic, R., Petkovic, M., Nedic, Z., Kasalica, B., Belca, I., Zekovic, Lj.

Electrochimica Acta 55 (2010 g.) (*IF* = 3.65)

***16. Large single crystals of isomorphous hexaaquametal(II) D-camphor10- sulfonates***

Jeremić, D.A., Kaluderović, G.N., Gómez-Ruiz, S., Brčeski, I., Kasalica, B., Leovac, V.M.

Crystal Growth and Design 10 (2010 g.) (*IF* = 4.39)

***17. The effect of annealing on the photoluminescent and optical properties of porous anodic alumina films formed in sulfamic acid***

Stojadinovic, S., Nedic, Z., Belca, I., Vasilic, R., Kasalica, B., Petkovic, M., Zekovic, Lj.

Applied Surface Science 256 (2009 g.) (*IF* = 1.62)

***18. Electronic transitions during plasma electrolytic oxidation of aluminum***

Kasalica, B., Petkovic, M., Belca, I., Stojadinovic, S., Zekovic, L.

Surface and Coatings Technology 203 (2009 g.) (*IF* = 1.79)

***19. Metrological assurance of biodevices: The new method of calibration of biochemical analyzers***

Skerovic, V., Zarubica, V., Kasalica, B., Stojadinovic, S., Belca, I.

Analytical Letters 42 (2009 g.) (*IF* = 1.32)

***20. Structural and luminescence characterization of porous anodic oxide films on aluminum formed in sulfamic acid solution***

Stojadinovic, S., Vasilic, R., Belca, I., Tadic, M., Kasalica, B., Zekovic, Lj.

Applied Surface Science 255 (2008 g.) (*IF* = 3.08)

***21. Galvanoluminescence properties of porous oxide films formed by anodization of aluminum in malonic acid***

Stojadinovic, S., Belca, I., Tadic, M., Kasalica, B., Nedic, Z., Zekovic, Lj.

Journal of Electroanalytical Chemistry 619 (2008 g.) (*IF* = 2.48)

***22. Effect of aluminum annealing on the galvanoluminescence properties of anodic oxide films formed in organic electrolytes***



Sarvan, M., Stojadinovic, S., Kasalica, B., Belca, I., Zekovic, Lj.

Electrochimica Acta 53 (2008 g.) (*IF* = 3.08)

***23. Nature of galvanoluminescence of oxide films formed by aluminum anodization in inorganic electrolytes***

Kasalica, B., Belča, I., Stojadinović, S., Sarvan, M., Perić, M., Zeković, L.

Journal of Physical Chemistry C 111 (2007 g.) (*IF* = 3.4)

***24. The galvanoluminescence spectra of barrier oxide films on aluminum formed in organic electrolytes***

Stojadinovic, S., Tadic, M., Belca, I., Kasalica, B., Zekovic, Lj.

Electrochimica Acta 52 (2007 g.) (*IF* = 2.85)

***25. The galvanoluminescence spectra of barrier oxide films on aluminum formed in inorganic electrolytes***

Stojadinovic, S., Belca, I., Kasalica, B., Zekovic, Lj., Tadic, M.

Electrochemistry Communications 8 (2006 g.) (*IF* = 3.48)

***26. Light-emitting-diode-based light source for calibration of an intensified charge-coupled device detection system intended for galvanoluminescence measurements***

Kasalica, B.V., Belca, I.D., Stojadinovic, S.D.J., Zekovic, L.J.D., Nikolic, D.

Applied Spectroscopy 60 (2006 g.) (*IF* = 1.88)

***27. The influence of aluminum treatment and anodizing conditions on the galvanoluminescence properties of porous oxide films formed in sulfuric acid solution***

Kasalica, B., Stojadinovic, S., Zekovic, Lj., Belca, I., Nikolic, D.

Electrochemistry Communications 7 (2005 g.) (*IF* = 3.39)

***28. Galvanoluminescence of porous oxide films formed by anodization of aluminum in chromic acid solution***

Stojadinovic, S., Belca, I., Zekovic, Lj., Kasalica, B., Nikolic, D.

Electrochemistry Communications 6 (2004 g.) (*IF* = 2.93)

***29. The influence of anodizing conditions on the galvanoluminescence spectra of porous oxide films on aluminum formed in phosphoric acid solution***

Stojadinovic, S., Zekovic, Lj., Belca, I., Kasalica, B., Nikolic, D.

Electrochemistry Communications 6 (2004 g.) (*IF* = 2.93)

***30. Galvanoluminescence of oxide films formed by anodization of aluminum in phosphoric acid***

Stojadinovic, S., Zekovic, Lj., Belca, I., Kasalica, B.

Electrochemistry Communications 6 (2004 g.) (*IF* = 2.93)

***31. Galvanoluminescence spectra of porous oxide layers formed by aluminum anodization in oxalic acid***

Belca, I., Kasalica, B., Zekovic, L., Jovanic, B., Vasilic, R.

Electrochimica Acta 45 (1999 g.) (*IF* = 1.32)

**Б. Монографије, уџбеници, помоћни уџбеници**

[Б1] др. Бећко Касалица, др. Горан Попарић

“Увод у акустику”,

Физички факултет Универзитета у Београду, 2012.

ИСБН: 978-86-84539-18-4

[Б–2] S. Stojadinović, R. Vasilic, B. Kasalica, I. Belča, Lj. Zeković,

*“Luminescence During the Electrochemical Oxidation of Aluminum”*,  
Modern Aspects of Electrochemistry: Electrodeposition and Surface Finishing, Ed. S. Djokić,  
Vol. 57, Chapter 5, pp. 241–303, Springer, ISBN 978–1–4939–0289–7 (2014).

## **В. Радови у зборницима међународних конференција**

### **Предавање по позиву**

**[БИ-1]** B. Kasalica

*„Oxide layers on alumina and their application in nanotechnology“*

ROSOV pin 2017 Beograd

### **Усмена излагања**

**[BO-1]** M. Petković, S. Stojadinović, R. Vasilić, I. Belca, B. Kasalica, Z. Nedić, Lj. Zeković,

*“Characterization of the plasma electrolytic oxidation of aluminium in electrolytes that produce barrier oxide films”*

Ninth young researchers’ conference materials sciences and engineering, 2010, Belgrade, Book of abstracts, 34.

**[BO-2]** Ivan Belča, Ljubiša Zeković, Stevan Stojadinović, Bećko Kasalica,

*“AFM indentation and electrolytical oxidation for production of nanopramids”*,

XVIII Symposium on Condensed Matter Physics – SFKM 2011, Belgrade, Book of abstracts, 53.

**[BO-3]** M. Petković, S. Stojadinović, R. Vasilić, I. Belca, B. Kasalica, Lj. Zeković,

*“Characterisation of bronze surface coatings on titanium formed by plasma electrolytic oxidation in 12-tungstosilicic acid”*

Tenth young researchers’ conference materials sciences and engineering, 2011, Belgrade, Book of abstracts, 38.

## Постер презентације

[BII-1] S. Stojadinovic, Lj. Zekovic, I. Belca, B. Kasalica, D. Popovic, D. Nikolic,

*”The galvanoluminescence spectra of porous oxide films formed by anodization of aluminum in chromic acid solution”*

XVI Symposium on Condensed Matter Physics – SFKM 2004, Soko Banja, 333-336.

[BII-2] I.D. Belca, Lj.D. Zekovic, B.V. Kasalica, S.Dj. Stojadinovic,

*“Time resolved galvanoluminescence spectra of thin anodic films on aluminum”,*

3<sup>rd</sup> Workshop on Nanoscience & Nanotechnologies, (2006) Thessaloniki Greece, Proceedings, 84.

[BII-3] S. Stojadinovic, I. Belca, B. Kasalica, Lj. Zekovic, M. Tadic,

*“The Galvanoluminescence spectra of barrier oxide films on aluminum formed in ammonium tartrate”,*

International Conference of Optical Materials and Devices ICOM 2006, Herceg Novi, Book of abstracts, 36.

[BII-4] S. Stojadinović, B. Kasalica, I. Belča, M. Sarvan, M. Tadić, M. Petković, Lj. Zeković,

*”The effect of annealing on the galvanoluminescence spectra of barrier anodic oxide films formed in organic electrolytes”*

XVII Symposium on Condensed Matter Physics – SFKM 2007, Vršac 226-229.

[BII-5] M. Petković, S. Stojadinović, R. Vasilić, I. Belča, B. Kasalica, Lj. Zeković,

*“Plasma electrolytic oxidation of aluminum in heteropolyacids”,*

XVIII Symposium on Condensed Matter Physics – SFKM 2011, Belgrade, Book of abstracts, 73.

[BII-6] Stevan Stojadinović, Rastko Vasilić, Marija Petković, Bećko Kasalica, Ivan Belča, Zoran Nedić, Ljubiša Zeković,

*“Optical characterization of discharge events during plasma electrolytic oxidation of aluminum in sodium tungstate”*

Second Regional Symposium on Electrochemistry South-East Europe RSE-SEE, 2010, Belgrade, 42-44.

#### **Г. Радови у зборницима домаћих конференција**

##### **Предавање по позиву**

[ГИ-1] S. Ђ. Stojadinović, Lj. D. Zeković, I. D. Belča, B.V. Kasalica,

*“Izrada, ispitivanje i kalibracija sekundarnog i radnog etalona temperature u oblasti iznad tačke očvršćavanja srebra”*,

X Kongres Fizičara Jugoslavije, Vrnjačka Banja, 2000, Knjiga II, 891-898.

##### **Пленарно предавање**

[ГИ-2] Б. Касалица, Д. Николић, С. Стојадиновић, И. Белча, Љ. Зековић

*„Израда стабилног извора светлости за одређивање квантне ефикасности широко таласног оптичко-детекционог система у видљивој области“*

Конгрес метеоролога 2005

##### **Усмена излагања**

[ГО-1] S. Stojadinović, Lj. Zeković, I. Belča, N. Sučević, B. Kasalica,

*“Linearni monohromatski optički pirometar-sekundarni etalon temperature u opsegu od 800°C do 2500 °C”*,

XLIV ETRAN, Soko Banja, 2000, Sveska III, 270-273.

[ГО-2] S. Stojadinović, Lj. Zeković, I. Belča, N. Sučević, B. Kasalica, R. Vasilić,

*“Linearni optički pirometri – sekundarni i radni etaloni temperature u oblasti radijacione termometrije”*,

Kongres metrologa Jugoslavije, Novi Sad, 2000, 1-7.

[ΓO-3] Lj. Zeković, I. Belča, S. Stojadinović, Kasalica, D. Nikolić,

*“Pirometarski sistem za merenje i kontrolu temperature zagrejanih tela sa kompenzacijom uticaja zračenja okoline”*,

Kongres metrologa Beograd 2005, 247-251.

[ΓO-4] S.Stojadinović, Lj. Zeković, I. Belča, B. Kasalica, D. Nikolić,

*“Galvanoluminescentni spektri poroznih oksidnih slojeva dobijenih anodizacijom aluminijuma”*,

XLIX ETRAN, Budva, 2005, Sveska II, 323-325.

[ΓO-5] S.Stojadinović, Lj. Zeković, I. Belča, B. Kasalica, M. Tadić,

*“Galvanoluminescentni spektri barijernih oksidnih slojeva dobijenih anodizacijom aluminijuma”*,

L ETRAN, Beograd, 2006, Sveska IV, 226-228.

[ΓO-6] S.Stojadinović, B. Kasalica, I. Belča, M. Tadić, M. Sarvan, M. Petković, D. Nikolić, Lj. Zeković,

*“Uticaj temperaturnog pretretmana površine aluminijuma na galvanoluminescenciju poroznih anodnih oksidnih slojeva”*,

LI ETRAN, Igalo, 2007, N.M1.4. 1-4.

[ΓO-7] V.Škerović, V.Zarubica, P.Vukadin, B.Kasalica, S.Stojadinović, I.Belča, I.Radovanović

*“Metrološka karakterizacija obojenih organskih rastvora kao sredstva poređenja za etaloniranje biohemijskih analizatora”*,

Kongres metrologa Zlatibor 2007, 51-57.

[ΓO-8] Lj. Zeković, I. Belča, S. Stojadinović, B. Kasalica,

*“Pirometarski sistem za merenje i kontrolu raspodele temperature u ložištima kotla TE Nikola Tesla”,*

Kongres metrologa Zlatibor 2007, 493-497.

[ГО-9] S.Stojadinović, I. Belča, B. Kasalica, M. Tadić, Lj. Zeković,

*“Etaloniranje linearnog monohromatskog optičkog pirometra na fiksnoj tački očvršćavanja bakra”,*

LII ETRAN, Palić, 2008, ML4.1-1-4.

[ГО-10] S. Stojadinović, I. Belča, R. Vasilić, B. Kasalica, M. Petković, M. Tadić, M. Sarvan, Lj. Zeković,

*“Fotoluminescentni karakteristike poroznih oksidnih slojeva dobijenih anodizacijom aluminijuma u sulfaminskoj kiselini”,*

LIII ETRAN, Vrnjačka Banja, 2009, NM 1.9-1-4.

[ГО-11] S. Stojadinović, R. Vasilić, I. Belča, B. Kasalica, M. Petković, Z. Nedić, M. Sarvan, Lj. Zeković,

*“Plazma elektrolitička oksidacija aluminijuma u elektrolitima koji sadrže volfram”,*

LIV ETRAN, Donji Milanovac, 2010, NM 1.1-1-4.

[ГО-12] M. Petković, S. Stojadinović, R. Vasilić, I. Belča, B. Kasalica, Lj. Zeković,

*“Plazma elektrolitička oksidacija tantala”,*

LV ETRAN, Banja Vrućica, 2011, NM 1.1-1-4.

### **Постер презентације**

[ГП-1] Lj. Zeković, I.Belča, S.Stojadinović, B. Kasalica,

*“Optical pyrometry – special purpose pyrometer realization”,*

Serbian Academy of Sciences and Arts-Applied Physics in Serbia, Belgrade, (2002), 167-171.

[ГП-2] S.Stojadinović, Lj. Zeković, I. Belča, B. Kasalica, D. Nikolić,

*“Uticaj uslova anodizacije i stanja površine na galvanoluminescenciju poroznih oksidnih slojeva dobijenih anodizacijom aluminijuma u neorganskim elektrolitima”*,

XI Kongres fizičara Srbije i Crne Gore, Petrovac na Moru (2004) 4/171-174.

[ГП-3] S.Stojadinović, Lj. Zeković, I. Belča, B. Kasalica, D. Nikolić,

*“Galvanoluminescentni spektri poroznih oksidnih slojeva dobijenih anodizacijom aluminijuma u fosfornoj kiselini”*,

XI Kongres fizičara Srbije i Crne Gore, Petrovac na Moru (2004) 4/175-178.

[ГП-4] S.Stojadinović, Lj. Zeković, I. Belča, B. Kasalica, D. Nikolić,

*“Galvanoluminescija barijernih oksidnih slojeva dobijenih anodizacijom aluminijuma u bornoj kiselini + boraks”*,

XI Kongres fizičara Srbije i Crne Gore, Petrovac na Moru (2004) 4/179-182.

[ГП-5] B. Kasalica, I. Belča, S.Stojadinović, A. Stamatović,

*“Ispitivanje prototipa reaktora/separatora za uklanjanje štetnih gasovitih sastojaka”*,

XI Kongres fizičara Srbije i Crne Gore, Petrovac na Moru (2004) 8/ 83-86.

#### **Д. Радови у домаћим часописима**

##### **[Д-1] *Plasma Electrolytic Oxidation of Tantalum***

Marija Petković, Stevan Stojadinović, Rastko Vasilić, Ivan Belča, Bećko Kasalica, Ljubiša Zeković,

Serbian Journal of Electrical Engineering 9(1) (2012) 81-94.

##### **[Д-2] *A multidisciplinary study on magnesium***



Rankovic Radomir Stojadinovic Stevan Dj Sarvan Mirjana Z Kasalica Becko V Krmar Marija D Radic-Peric Jelena B Peric Miljenko N

Journal of the Serbian Chemical Society, (2012), vol. 77 br. 11, str. 1483-1528

## **Е. Магистарски и докторски рад**

[Е-1] Бећко Касалица

Магистарски рад:

*"Испитивање галванолуминесцентних ефеката на оксидним слојевима добијеним анодизацијом алуминијума у оксалној киселини"*

Универзитет у Београду, Физички факултет (1997)

[Е-2] Бећко Касалица

Докторска дисертација:

*"Динамика луминесцентних процеса танких оксидних слојева добијених анодизацијом алуминијума"*

Универзитет у Београду, Физички факултет (2006)

## **6. ЦИТАТИ**

**Цитати радова у међународним часописима дати у списку радова под бројем:**

***2. The mechanism of evolution of microdischarges at the beginning of the PEO process on aluminum***

**1.** The micro-arc oxidation (MAO) behaviors of in-situ TiB<sub>2</sub>/A201 composite  
Zhang H., Geng J., Li X., Chen Z., Wang M., Ma N., Wang H.  
Applied Surface Science, Volume 422, 2017

2. Micro-structures and growth mechanisms of plasma electrolytic oxidation coatings on aluminium at different current densities

Zhang Y., Wu Y., Chen D., Wang R., Li D., Guo C., Jiang G., Shen D., Yu S., Nash P.  
Surface and Coatings Technology, Volume 321, 2017

### **3. Investigation of long-duration plasma electrolytic oxidation of aluminum by means of optical spectroscopy**

1. Plasma electrolytic oxidation of magnesium and its alloys: Mechanism, properties and applications

Barati Darband G., Aliofkhazraei M., Hamghalam P., Valizade N.  
Journal of Magnesium and Alloys, Volume 5, 2017

2. Active screen plasma nitriding of Al using an iron cage: Characterization and evaluation

Yazdani A., Soltanieh M., Aghajani H.  
Vacuum, Volume 122, 2015

3. Luminescence of Eu ion in alumina prepared by plasma electrolytic oxidation

Smits, K., Millers, D., Zolotarjovs, A., Drunka, R., Vanks, M.  
Applied Surface Science 2015

4. Study on coating growth characteristics during the electrolytic oxidation of a magnesium-lithium alloy by optical emission spectroscopy analysis

Yao, Z., Xia, Q., Wei, H., (...), Sun, Q., Jiang, Z.  
RSC Advances 2015

5. Luminescence of Eu ion in alumina prepared by plasma electrolytic oxidation

Smits, K., Millers, D., Zolotarjovs, A., Drunka, R., Vanks, M.  
Applied Surface Science 2015

### **4. Galvanoluminescence of oxide films during the anodization of titanium**

1. Y. Cheng, M. Mao, J. Cao, Z. Peng, “Plasma electrolytic oxidation of an Al-Cu-Li alloy in alkaline aluminate electrolytes: A competition between growth and dissolution for the initial ultra-thin films”, *Electrochimica Acta* 138 (2014) 417–429.

2. A. Nowak-Stepniowska, “A review of quantitative arrangement analysis methods applied to nanostructured anodic oxides characterization”, *Current Nanoscience* 11 (2015) 581–592.

### **6. Characterization of the plasma electrolytic oxidation of titanium in sodium metasilicate**

1. Electrochemical rutile and anatase formation on PEO surfaces

By: Friedemann, A. E. R.; Gesing, Th. M.; Plagemann, P.  
SURFACE & COATINGS TECHNOLOGY Volume: 315 Pages: 139-149 Published: APR 15 2017

2. Growth kinetics and morphology of microarc oxidation coating on titanium

By: Erfanifar, Eliyas; Aliofkhazraei, Mahmood; Nabavi, Houman Fakhr; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 315 Pages: 567-576 Published: APR 15 2017

3. Effect of plasma electrolytic oxidation on joining of AA 5052 aluminium alloy to polypropylene using friction stir spot welding  
By: Aliasghari, S.; Ghorbani, M.; Skeldon, P.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 313 Pages: 274-281 Published: MAR 15 2017
4. Anodic films obtained on Ti6Al4V in aluminate solutions by spark anodizing: Effect of OH- and WO4-2 additions on the tribological properties  
By: Quintero, D.; Gomez, M. A.; Castano, J. G.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 310 Pages: 180-189 Published: JAN 25 2017
5. Synthesis of TiC coating on Ti substrate using pulsed laser deposition and mechanical milling techniques along with statistical modeling of the process by response surface methodology  
By: Sajjadi, Seyed Abdolkarim; Saba, Farhad; Ghadirzadeh, Ali; et al.  
POWDER TECHNOLOGY Volume: 305 Pages: 704-713 Published: JAN 2017
6. Microstructure and wear resistant performance of TiN/Zr-base amorphous-nanocrystalline composite coatings on titanium alloy by electrospark deposition  
By: Hong, Xiang; Tan, Yefa; Wang, Xiaolong; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 305 Pages: 67-75 Published: NOV 15 2016
7. An investigation on pulsed DC plasma electrolytic oxidation of cp-Ti and its corrosion behaviour in simulated body fluid  
By: Gowtham, S.; Arunnellaiappan, T.; Rameshbabu, N.  
SURFACE & COATINGS TECHNOLOGY Volume: 301 Pages: 63-73 Published: SEP 15 2016
8. SEM, EDS and XPS Analysis of the Coatings Obtained on Titanium after Plasma Electrolytic Oxidation in Electrolytes Containing Copper Nitrate  
By: Rokosz, Krzysztof; Hryniewicz, Tadeusz; Matysek, Dalibor; et al.  
MATERIALS Volume: 9 Issue: 5 Article Number: 318 Published: MAY 2016
9. Surface characterisation and corrosion behaviour of niobium treated in a Ca- and P-containing solution under sparking conditions  
By: Sowa, Maciej; Worek, Joanna; Dercz, Grzegorz; et al.  
ELECTROCHIMICA ACTA Volume: 198 Pages: 91-103 Published: APR 20 2016
10. Formation mechanism and surface characterization of ceramic composite coatings on pure titanium prepared by micro-arc oxidation in electrolytes containing nanoparticles  
By: Shokouhfar, M.; Allahkaram, S. R.  
SURFACE & COATINGS TECHNOLOGY Volume: 291 Pages: 396-405 Published: APR 15 2016
11. The entrance mechanism of calcium and phosphorus elements into micro arc oxidation coatings developed on Ti6Al4V alloy  
By: Qiao, L. P.; Lou, J.; Zhang, S. F.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 285 Pages: 187-196 Published: JAN 15 2016
12. Preparation of PEO coating on Ti6Al4V in different electrolytes and evaluation of its properties  
By: Khanmohammadi, H.; Allahkaram, S. R.; Towhidi, N.; et al.  
SURFACE ENGINEERING Volume: 32 Issue: 6 Pages: 448-456 Published: 2016

- 13.** Synchronised electrical monitoring and high speed video of bubble growth associated with individual discharges during plasma electrolytic oxidation  
By: Troughton, S. C.; Nomine, A.; Nomine, A. V.; et al.  
APPLIED SURFACE SCIENCE Volume: 359 Pages: 405-411 Published: DEC 30 2015
- 14.** Control of the physical properties of anodic coatings obtained by plasma electrolytic oxidation on Ti6Al4V alloy  
By: Quintero, D.; Galvis, O.; Calderon, J. A.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 283 Pages: 210-222 Published: DEC 15 2015
- 15.** Compactness of coatings treated by MAO and LSM on Ti alloy  
By: Wang, Fengbiao; Hou, Bo; Yuan, Kai; et al.  
EMERGING MATERIALS RESEARCH Volume: 4 Issue: 2 Pages: 265-272 Published: DEC 2015
- 16.** A facile preparation of ceramic coatings on Ti alloys for thermal protection systems  
By: Yao, Zhongping; Xia, Qixing; Shen, Qiaoxiang; et al.  
SOLAR ENERGY MATERIALS AND SOLAR CELLS Volume: 143 Pages: 236-241  
Published: DEC 2015
- 17.** Ignition modes of nanosecond discharge with bubbles in distilled water  
By: Hamdan, Ahmad; Cha, Min Suk  
JOURNAL OF PHYSICS D-APPLIED PHYSICS Volume: 48 Issue: 40 Article Number: 405206 Published: OCT
- 18.** Effects of nitrogen flux on microstructure and tribological properties of in-situ TiN coatings deposited on TC11 titanium alloy by electrospray deposition  
By: Hong, Xiang; Tan, Ye-fa; Wang, Xiao-long; et al.  
TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA Volume: 25 Issue: 10 Pages: 3329-3338
- 19.** Biofunctionalization of Ti-13Nb-13Zr alloy surface by plasma electrolytic oxidation. Part I  
By: Kazek-Kesik, Alicja; Dercz, Grzegorz; Suchanek, Katarzyna; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 276 Pages: 59-69 Published: AUG 25 2015
- 20.** High speed video evidence for localised discharge cascades during plasma electrolytic oxidation  
By: Nomine, A.; Troughton, S. C.; Nomine, A. V.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 269 Pages: 125-130 Published: MAY 15 2015
- 21.** Study of Compactness of Micro-Arc Oxidation Coating Treated by Laser Surface Melting on TC4 Surface  
By: Wang, Fengbiao; Wang, Yongqing; Zhang, Jinbao; et al.  
MATERIALS FOCUS Volume: 4 Issue: 2 Pages: 118-123 Published: APR 2015
- 22.** Zirconia films formed by plasma electrolytic oxidation: Photo luminescent and photocatalytic properties  
By: Stojadinovic, S.; Vasilic, R.; Radic, N.; et al.  
OPTICAL MATERIALS Volume: 40 Pages: 20-25 Published: FEB 2015
- 23.** One-step preparation and photocatalytic performance of vanadium doped TiO<sub>2</sub> coatings  
By: Vasilic, R.; Stojadinovic, S.; Radic, N.; et al.

- MATERIALS CHEMISTRY AND PHYSICS Volume: 151 Pages: 337-344 Published: FEB 1 2015
- 24.** Luminescence of oxide films during the electrolytic oxidation of tantalum  
By: Stojadinovic, S.; Tadic, N.; Vasilic, R.
- ELECTROCHIMICA ACTA Volume: 152 Pages: 323-329 Published: JAN 10 2015
- 25.** Effects of single pulse energy on the properties of ceramic coating prepared by micro-arc oxidation on Ti alloy  
By: Wang, Jun-Hua; Wang, Jin; Lu, Yan; et al.
- APPLIED SURFACE SCIENCE Volume: 324 Pages: 405-413 Published: JAN 1 2015
- 26.** Effect of electrochemical parameters on the formation of anodic films on commercially pure titanium by plasma electrolytic oxidation  
By: Quintero, D.; Galvis, O.; Calderon, J. A.; et al.
- SURFACE & COATINGS TECHNOLOGY Volume: 258 Pages: 1223-1231 Published: NOV 15 2014
- 27.** Plasma electrolytic oxidation of titanium in a phosphate/silicate electrolyte and tribological performance of the coatings  
By: Aliasghari, S.; Skeldon, P.; Thompson, G. E.
- APPLIED SURFACE SCIENCE Volume: 316 Pages: 463-476 Published: OCT 15 2014
- 28.** Study plasma electrolytic oxidation process and characterization of coatings formed in an alumina nanoparticle suspension  
By: Sarbishei, Sahand; Sani, Mohammad Ali Faghihi; Mohammadi, Mohammad Reza
- VACUUM Volume: 108 Pages: 12-19 Published: OCT 2014
- 29.** Effect of Anodization time on Morphology and Electrochemical Impedance of Andic Oxide Films on Titanium Alloy in Tartrate Solution  
By: Wu, Liang; Liu, Jianhua; Yu, Mei; et al.
- INTERNATIONAL JOURNAL OF ELECTROCHEMICAL SCIENCE Volume: 9 Issue: 9  
Pages: 5012-5024 Published: SEP 2014
- 30.** Preparation of high emissivity and low absorbance thermal control coatings on Ti alloys by plasma electrolytic oxidation  
By: Yao, Zhongping; Shen, Qiaoxiang; Niu, Aoxiang; et al.
- SURFACE & COATINGS TECHNOLOGY Volume: 242 Pages: 146-151 Published: MAR 15 2014
- 31.** The tribological properties of bioceramic coatings produced on Ti6Al4V alloy by plasma electrolytic oxidation  
By: Durdu, Salih; Usta, Metin
- CERAMICS INTERNATIONAL Volume: 40 Issue: 2 Pages: 3627-3635 Published: MAR 2014
- 32.** The evidence of cathodic micro-discharges during plasma electrolytic oxidation process  
By: Nomine, A.; Martin, J.; Noel, C.; et al.
- APPLIED PHYSICS LETTERS Volume: 104 Issue: 8 Article Number: 081603 Published: FEB 24 2014
- 33.** Characterization and mechanical properties of the duplex coatings produced on steel by electro-spark deposition and micro-arc oxidation  
By: Durdu, Salih; Aktug, Salim Levent; Korkmaz, Kemal
- SURFACE & COATINGS TECHNOLOGY Volume: 236 Pages: 303-308 Published: DEC 15 2013

- 34.** Application of plasma electrolytic oxidation to bioactive surface formation on titanium and its alloys  
By: Krzakala, Agnieszka; Kazek-Kesik, Alicja; Simka, Wojciech  
RSC ADVANCES Volume: 3 Issue: 43 Pages: 19725-19743 Published: 2013
- 35.** Structural, photoluminescent and photocatalytic properties of TiO<sub>2</sub>:Eu<sup>3+</sup> coatings formed by plasma electrolytic oxidation  
By: Stojadinovic, Stevan; Radic, Nenad; Grbic, Bosko; et al.  
APPLIED SURFACE SCIENCE Volume: 370 Pages: 218-228 Published: MAY 1 2016
- 36.** Anodic luminescence, structural, photoluminescent, and photocatalytic properties of anodic oxide films grown on niobium in phosphoric acid  
By: Stojadinovic, Stevan; Tadic, Nenad; Radic, Nenad; et al.  
APPLIED SURFACE SCIENCE Volume: 355 Pages: 912-920 Published: NOV 15 2015
- 37.** TiO<sub>2</sub>/SnO<sub>2</sub> photocatalyst formed by plasma electrolytic oxidation  
By: Stojadinovic, S.; Tadic, N.; Radic, N.; et al.  
MATERIALS LETTERS Volume: 196 Pages: 292-295 Published: JUN 1 2017
- 38.** Characterization and photocatalytic properties of tungsten doped TiO<sub>2</sub> coatings on aluminum obtained by plasma electrolytic oxidation  
By: Tadic, Nenad; Stojadinovic, Stevan; Radic, Nenad; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 305 Pages: 192-199 Published: NOV 15 2016

## **7. Luminescence during the anodization of zirconium**

- 1.** Green photoluminescence in Tb<sup>3+</sup>-doped ZrO<sub>2</sub> nanotube arrays  
By: Fu, Ning; Wang, Xixin; Guo, Limin; et al.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS Volume: 28  
Issue: 10 Special Issue: SI Pages: 7253-7258 Published: MAY 2017
- 2.** The effects of anion deposition and negative pulse on the behaviours of plasma electrolytic oxidation (PEO)-A systematic study of the PEO of a Zirloy alloy in aluminate electrolytes  
By: Cheng, Yingliang; Wang, Ting; Li, Shaoxian; et al.  
ELECTROCHIMICA ACTA Volume: 225 Pages: 47-68 Published: JAN 20 2017
- 3.** Formation and photoluminescence of Eu<sup>3+</sup> doped zirconia coatings formed by plasma electrolytic oxidation  
By: Stojadinovic, Stevan; Vasilic, Rastko  
JOURNAL OF LUMINESCENCE Volume: 176 Pages: 25-31 Published: AUG 2016
- 4.** Formation process of in situ oxide coatings with high porosity using one-step plasma electrolytic oxidation  
By: Yu, Xiwen; Chen, Li; Qin, Honglei; et al.
- 5.** Anodic luminescence, structural, photoluminescent, and photocatalytic properties of anodic oxide films grown on niobium in phosphoric acid  
By: Stojadinovic, Stevan; Tadic, Nenad; Radic, Nenad; et al.  
APPLIED SURFACE SCIENCE Volume: 355 Pages: 912-920 Published: NOV 15 2015
- 6.** In-situ fabrication of catalytic metal oxide films in microchannel by plasma electrolytic oxidation  
By: Yu, Xiwen; Chen, Li; He, Yongyi; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 269 Pages: 30-35 Published: MAY 15 2015

**7.** Correlation between plasma electrolytic oxidation treatment stages and coating microstructure on aluminum under unipolar pulsed DC mode

By: Dehnavi, Vahid; Luan, Ben Li; Liu, Xing Yang; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 269 Pages: 91-99 Published: MAY 15 2015

**8.** Electrical characteristics identification of dielectric film breakdown during plasma electrolytic oxidation process

By: Yang, Kai; Cao, Biao

MATERIALS LETTERS Volume: 143 Pages: 177-180 Published: MAR 15 2015

**9.** Zirconia films formed by plasma electrolytic oxidation: Photo luminescent and photocatalytic properties

By: Stojadinovic, S.; Vasilic, R.; Radic, N.; et al.

OPTICAL MATERIALS Volume: 40 Pages: 20-25 Published: FEB 2015

**10.** Luminescence of oxide films during the electrolytic oxidation of tantalum

By: Stojadinovic, S.; Tadic, N.; Vasilic, R.

ELECTROCHIMICA ACTA Volume: 152 Pages: 323-329 Published: JAN 10 2015

**11.** Characterization of Porous Anodic Aluminum Oxide Films by Luminescence Methods - A Review

By: Stojadinovic, Stevan; Vasilic, Rastko

CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 547-559 Published: 2015

**12.** A Review of Quantitative Arrangement Analysis Methods Applied to Nanostructured Anodic Oxides Characterization

By: Nowak-Stepniowska, Agata

CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 581-592 Published: 2015

**13.** Anodization of cold deformed technical purity aluminum (AA1050) in oxalic acid

By: Stepniowski, Wojciech J.; Michalska-Domanska, Marta; Norek, Malgorzata; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 258 Pages: 268-274 Published: NOV 15 2014

**14.** Role of electrolyte composition on structural, morphological and in-vitro biological properties of plasma electrolytic oxidation films formed on zirconium

By: Sandhyarani, M.; Prasadrao, T.; Rameshbabu, N.

APPLIED SURFACE SCIENCE Volume: 317 Pages: 198-209 Published: OCT 30 2014

**15.** Plasma electrolytic oxidation of an Al-Cu-Li alloy in alkaline aluminate electrolytes: A competition between growth and dissolution for the initial ultra-thin films

By: Cheng, Ying-liang; Mao, Mo-ke; Cao, Jin-hui; et al.

ELECTROCHIMICA ACTA Volume: 138 Pages: 417-429 Published: AUG 20 2014

**16.** In situ investigation of initial stage growth of anodic ZrO<sub>2</sub> nanotubes by spectroscopic ellipsometry

By: Li, Lingjie; Yan, Dongxia; Lei, Jinglei; et al.

ELECTROCHEMISTRY COMMUNICATIONS Volume: 42 Pages: 13-16 Published: MAY 2014

- 17.** Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review  
By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko  
RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014
- 18.** Corrosion Evaluation of Zirconium Doped Oxide Coatings on Aluminum Formed by Plasma Electrolytic Oxidation  
By: Bajat, Jelena B.; Miskovic-Stankovic, Vesna; Vasilic, Rastko; et al.  
ACTA CHIMICA SLOVENICA Volume: 61 Issue: 2 Pages: 308-315 Published: 2014
- 19.** Spectroscopic Investigation of Direct Current (DC) Plasma Electrolytic Oxidation of Zirconium in Citric Acid  
By: Stojadinovic, Stevan; Radic-Peric, Jelena; Vasilic, Rastko; et al.  
APPLIED SPECTROSCOPY Volume: 68 Issue: 1 Pages: 101-112 Published: JAN 2014
- 20.** Comparison of plasma electrolytic oxidation of zirconium alloy in silicate- and aluminate-based electrolytes and wear properties of the resulting coatings  
By: Cheng, Yingliang; Wu, Fan; Dong, Jiali; et al.  
ELECTROCHIMICA ACTA Volume: 85 Pages: 25-32 Published: DEC 15 2012

## **8. *Luminescence during anodization of magnesium alloy AZ31***

- 1.** Effect of Electrolyte Concentration on the Structure and Corrosion Resistance of Anodic Films Formed on Magnesium through Plasma Electrolytic Oxidation  
By: Ono, Sachiko; Moronuki, Shuichi; Mori, Yoichi; et al.  
ELECTROCHIMICA ACTA Volume: 240 Pages: 415-423 Published: JUN 20 2017
- 2.** Corrosion behavior of HA containing ceramic coated magnesium alloy in Hank's solution  
By: Tang, Hui; Wu, Tao; Wang, Hong; et al.  
JOURNAL OF ALLOYS AND COMPOUNDS Volume: 698 Pages: 643-653 Published: MAR 25 2017
- 3.** Formation process of in situ oxide coatings with high porosity using one-step plasma electrolytic oxidation  
By: Yu, Xiwen; Chen, Li; Qin, Honglei; et al.  
APPLIED SURFACE SCIENCE Volume: 366 Pages: 432-438 Published: MAR 15 2016
- 4.** Corrosion resistance of plasma electrolytic oxidation layer of a non-ignitable Mg-Al-Mn-Ca magnesium alloy  
By: Mori, Yoichi; Koshi, Akihiko; Liao, Jinsun  
CORROSION SCIENCE Volume: 104 Pages: 207-216 Published: MAR 2016
- 5.** Characterization of plasma electrolytic oxidation of magnesium alloy AZ31 in alkaline solution containing fluoride  
By: Stojadinovic, Stevan; Vasilic, Rastko; Radic-Peric, Jelena; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 273 Pages: 1-11 Published: JUL 15 2015
- 6.** Correlation between plasma electrolytic oxidation treatment stages and coating microstructure on aluminum under unipolar pulsed DC mode  
By: Dehnavi, Vahid; Luan, Ben Li; Liu, Xing Yang; et al.



SURFACE & COATINGS TECHNOLOGY Volume: 269 Pages: 91-99 Published: MAY 15 2015

**7.** Luminescence of oxide films during the electrolytic oxidation of tantalum

By: Stojadinovic, S.; Tadic, N.; Vasilic, R.

ELECTROCHIMICA ACTA Volume: 152 Pages: 323-329 Published: JAN 10 2015

**8.** Study on coating growth characteristics during the electrolytic oxidation of a magnesium-lithium alloy by optical emission spectroscopy analysis

By: Yao, Zhongping; Xia, Qixing; Wei, Han; et al.

RSC ADVANCES Volume: 5 Issue: 84 Pages: 68806-68814 Published: 2015

**9.** Characterization of Porous Anodic Aluminum Oxide Films by Luminescence Methods - A Review

By: Stojadinovic, Stevan; Vasilic, Rastko

CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 547-559 Published: 2015

**10.** Characteristics and corrosion resistance of plasma electrolytic oxidation coatings on AZ31B Mg alloy formed in phosphate - Silicate mixture electrolytes

By: Mori, Yoichi; Koshi, Akihiko; Liao, Jinsun; et al.

CORROSION SCIENCE Volume: 88 Pages: 254-262 Published: NOV 2014

**11.** Effect of current mode on PEO treatment of magnesium in Ca- and P-containing electrolyte and resulting coatings

By: Gao, Yonghao; Yerokhin, Aleksey; Matthews, Allan

APPLIED SURFACE SCIENCE Volume: 316 Pages: 558-567 Published: OCT 15 2014

**12.** Wear and corrosion behavior of Mg-Gd-Y-Zr alloy treated by mixed molten-salt bath

By: Niu, Yunsong; Cui, Ronghong; He, Yuting; et al.

JOURNAL OF ALLOYS AND COMPOUNDS Volume: 610 Pages: 294-300 Published: OCT 15 2014

**13.** Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review

By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko

RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014

**14.** Spectroscopic Investigation of Direct Current (DC) Plasma Electrolytic Oxidation of Zirconium in Citric Acid

By: Stojadinovic, Stevan; Radic-Peric, Jelena; Vasilic, Rastko; et al.

APPLIED SPECTROSCOPY Volume: 68 Issue: 1 Pages: 101-112 Published: JAN 2014

**15.** Role of electrolyte chemistry on electronic and in vitro electrochemical properties of micro-arc oxidized titania films on Cp Ti

By: Venkateswarlu, K.; Rameshbabu, N.; Sreekanth, D.; et al.

ELECTROCHIMICA ACTA Volume: 105 Pages: 468-480 Published: AUG 30 2013

**16.** Spectroscopic study of plasma during electrolytic oxidation of magnesium- and aluminium-alloy

By: Jovovic, J.; Stojadinovic, S.; Sisovic, N. M.; et al.

JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER Volume: 113 Issue: 15 Pages

## **9. Luminescence of the $B\ 2\Sigma^- + X\ 2\Sigma^- +$ band system of $AlO$ during plasma electrolytic oxidation of aluminum**

**1. Prediction of metastable  $AlS^{2+}$  dications in the gas phase**

By: Merabti, Karim Elhadj; Mehnen, Bilel; Azizi, Sihem; et al.

PHYSICAL REVIEW A Volume: 95 Issue: 2 Article Number: 022508 Published: FEB 21 2017

**2. Gibbs energy calculation of electrolytic plasma channel with inclusions of copper and copper oxide with Al-base**

By: Posuvailo, V. M.; Klapkiv, M. D.; Student, M. M.; et al.

Book Group Author(s): IOP

Conference: 19th Chemnitz Seminar on Materials Engineering Location: Chemnitz Univ Technol, Inst Mat Sci & Engr, Chemnitz, GERMANY Date: MAR 16-17, 2017

19TH CHEMNITZ SEMINAR ON MATERIALS ENGINEERING Book Series: IOP

Conference Series-Materials Science and Engineering Volume: 181 Article Number: UNSP 012045 Published: 2017

**3. Theoretical investigation of the long-lived metastable  $AlO^{2+}$  dication in gas phase**

By: Sghaier, Onsi; Abdallah, Hassan H.; Abdullah, Hewa Y.; et al.

CHEMICAL PHYSICS Volume: 477 Pages: 32-38 Published: SEP 30 2016

**4. Anodization of FeAl intermetallic alloys for bandgap tunable nanoporous mixed aluminum-iron oxide**

By: Stepniowski, Wojciech J.; Choi, Jinsub; Yoo, Hyeonseok; et al.

JOURNAL OF ELECTROANALYTICAL CHEMISTRY Volume: 771 Pages: 37-44  
Published: JUN 15 2016

**5. Characterization of plasma electrolytic oxidation of magnesium alloy AZ31 in alkaline solution containing fluoride**

By: Stojadinovic, Stevan; Vasilic, Rastko; Radic-Peric, Jelena; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 273 Pages: 1-11 Published: JUL 15 2015

**6. Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review**

By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko

RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014

**7. In situ doping of diamond coatings with silicon, aluminum and titanium through a modified laser-based CVD process**

By: Schwander, Michael; Vollertsen, Frank

DIAMOND AND RELATED MATERIALS Volume: 41 Pages: 41-48 Published: JAN 2014

**8. Spectroscopic Investigation of Direct Current (DC) Plasma Electrolytic Oxidation of Zirconium in Citric Acid**

By: Stojadinovic, Stevan; Radic-Peric, Jelena; Vasilic, Rastko; et al.

APPLIED SPECTROSCOPY Volume: 68 Issue: 1 Pages: 101-112 Published: JAN 2014

**9. Corrosion Stability of Oxide Coatings Formed by Plasma Electrolytic Oxidation of Aluminum: Optimization of Process Time**

By: Bajat, J. B.; Vasilic, R.; Stojadinovic, S.; et al.

CORROSION Volume: 69 Issue: 7 Pages: 693-702 Published: JUL 2013

**10. Effects of electrical parameters on plasma electrolytic oxidation of aluminium**

By: Martin, J.; Melhem, A.; Shchedrina, I.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 221 Pages: 70-76 Published: APR 25 2013

**11. Plasma electrolytic oxidation of metals**

By: Stojadinovic, Stevan

JOURNAL OF THE SERBIAN CHEMICAL SOCIETY Volume: 78 Issue: 5 Pages: 713-716  
Published: 2013

**12. Spectroscopic study of plasma during electrolytic oxidation of magnesium- and aluminium-alloy**

By: Jovovic, J.; Stojadinovic, S.; Sisovic, N. M.; et al.

JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER Volume: 113 Issue: 15 Pages: 1928-1937 Published: OCT 2012

**13. Luminescence of the B-1 Sigma(+)-X-1 Sigma(+), band system of MgO during plasma electrolytic oxidation of magnesium alloy**

By: Stojadinovic, S.; Peric, M.; Radic-Peric, J.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 11-12 Pages: 2905-2913  
Published: FEB 15 2012

***10. Identification of the  $C 2\Pi-X 2\Sigma +$  band system of AlO in the ultraviolet galvanoluminescence obtained during aluminum anodization***

**1. Formation mechanism of MgAlON phase in aluminum-magnesia composite materials**

By: Sun, Yang; Chen, Shu-Jiang; Tian, Lin; et al.

MATERIALS CHEMISTRY AND PHYSICS Volume: 197 Pages: 65-69 Published: AUG 15 2017

**2. Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review**

By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko

RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014

**3. Spectroscopic Investigation of Direct Current (DC) Plasma Electrolytic Oxidation of Zirconium in Citric Acid**

By: Stojadinovic, Stevan; Radic-Peric, Jelena; Vasilic, Rastko; et al.

APPLIED SPECTROSCOPY Volume: 68 Issue: 1 Pages: 101-112 Published: JAN 2014

***11. Preparation of silicate tungsten bronzes on aluminum by plasma electrolytic oxidation process in 12-tungstosilicic acid***

**1. Contact Glow Discharge Electrolysis: A Novel Tool for Manifold Applications**

By: Sen Gupta, Susanta K.

PLASMA CHEMISTRY AND PLASMA PROCESSING Volume: 37 Issue: 4 Pages: 897-945 Published: JUL 2017

**2. Characterization and photocatalytic properties of tungsten doped TiO<sub>2</sub> coatings on aluminum obtained by plasma electrolytic oxidation**

By: Tadic, Nenad; Stojadinovic, Stevan; Radic, Nenad; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 305 Pages: 192-199 Published: NOV 15 2016

**3.** Effect of current density on the microstructure and corrosion properties of plasma electrolytic oxidation (PEO) coatings on AM50 Mg alloy produced in an electrolyte containing clay additives  
By: Rapheal, G.; Kumar, S.; Scharnagl, N.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 289 Pages: 150-164 Published: MAR 15 2016

**4.** Effects of pulsed current on plasma electrolytic oxidation

By: Mann, R.; Hansal, W. E. G.; Hansal, S.

TRANSACTIONS OF THE INSTITUTE OF METAL FINISHING Volume: 92 Issue: 6  
Pages: 297-304 Published: DEC 2014

**5.** Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review

By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko

RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014

**6.** Spectroscopic Investigation of Direct Current (DC) Plasma Electrolytic Oxidation of Zirconium in Citric Acid

By: Stojadinovic, Stevan; Radic-Peric, Jelena; Vasilic, Rastko; et al.

APPLIED SPECTROSCOPY Volume: 68 Issue: 1 Pages: 101-112 Published: JAN 2014

**7.** Corrosion Stability of Oxide Coatings Formed by Plasma Electrolytic Oxidation of Aluminum: Optimization of Process Time

By: Bajat, J. B.; Vasilic, R.; Stojadinovic, S.; et al.

CORROSION Volume: 69 Issue: 7 Pages: 693-702 Published: JUL 2013

**8.** Plasma electrolytic oxidation of metals

By: Stojadinovic, Stevan

JOURNAL OF THE SERBIAN CHEMICAL SOCIETY Volume: 78 Issue: 5 Pages: 713-716  
Published: 2013

### ***13. Photoluminescent properties of barrier anodic oxide films on aluminum***

**1.** Synthesis and photoluminescence enhancement of nano-PAA-ZnCl<sub>2</sub> with controllable dimension and morphology

By: Wu, Jianguo; Wang, Kaige; Zhou, Yukun; et al.

APPLIED SURFACE SCIENCE Volume: 390 Pages: 122-130 Published: DEC 30 2016

**2.** Pore diameter-dependence photoluminescence spectra for porous anodized aluminum oxide membranes fabricated in different acid solutions

By: Lv, Hong-Hou; Wang, Xue-Wei; Kang, Yao-Ren; et al.

JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS Volume: 18 Issue: 3-4 Pages: 275-280 Published: MAR-APR 2016

**3.** Scratch behavior of aluminum anodized in oxalic acid: Effect of anodizing potential

By: Choudhary, R. K.; Mishra, P.; Kain, V.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 283 Pages: 135-147 Published: DEC 15 2015

4. Synthesis and characterization of Al<sub>2</sub>O<sub>3</sub>/ZnO coatings formed by plasma electrolytic oxidation  
By: Stojadinovic, S.; Tadic, N.; Radic, N.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 276 Pages: 573-579 Published: AUG 25 2015
5. Luminescence from micro-/nano-scale anodic aluminum oxide containing electrochemical etching derived nanoporous silicon  
By: Cao Xuan Thang; Vuong-Hung Pham  
MATERIALS LETTERS Volume: 146 Pages: 55-58 Published: MAY 1 2015
6. A Review of Quantitative Arrangement Analysis Methods Applied to Nanostructured Anodic Oxides Characterization  
By: Nowak-Stepniowska, Agata  
CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 581-592 Published: 2015
7. Improving dielectric performance in anodic aluminum oxide via detection and passivation of defect states  
By: Mibus, M.; Jensen, C.; Hu, X.; et al.  
APPLIED PHYSICS LETTERS Volume: 104 Issue: 24 Article Number: 244103  
Published: JUN 16 2014
8. Heat treatment and photoluminescence of 3-D vertical arrays of Al<sub>2</sub>O<sub>3</sub> nanopores on Al fabrics or foils  
By: Fang, Dong; Li, Licheng; Xu, Weilin; et al.  
MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS Volume: 179 Pages: 71-76 Published: JAN 2014
9. Photoluminescence emission of nanoporous anodic aluminum oxide films prepared in phosphoric acid  
By: Nourmohammadi, Abolghasem; Asadabadi, Saeid Jalali; Yousefi, Mohammad Hasan; et al.  
NANOSCALE RESEARCH LETTERS Volume: 7 Article Number: 689 Published: DEC 29 2013
10. Factors affecting the corrosion behaviour of aluminium in acid solutions. II. Inorganic additives as corrosion inhibitors for Al in HCl solutions  
By: Abd El Aal, E. E.; Abd El Wanees, S.; Farouk, A.; et al.  
CORROSION SCIENCE Volume: 68 Pages: 14-24 Published: MAR 2013
11. Effect of Neodymium Salt in the Anodization of Aluminum in Sulphuric Acid  
By: Liu, Xiaozhen; Gen, Jianqiang; Yu, Aibing; et al.  
Edited by: Bu, JL; Jiang, ZY; Jiao, S  
Conference: 2nd International Conference on Advances in Materials and Manufacturing Processes (ICAMMP 2011) Location: Guilin, PEOPLES R CHINA Date: DEC 16-18, 2011  
Sponsor(s): Univ Wollongong; NE Univ Qinhuangdao; Univ Sci & Technol Beijing; Hebei Polytechn Univ  
ADVANCED MATERIALS, PTS 1-3 Book Series: Advanced Materials Research Volume: 415-417 Pages: 1895-+ Published: 2012
12. Effect of Praseodymium Salt on Properties of Anodic Aluminum Oxide Films  
By: Liu, Xiaozhen; Liu, Zhaoxin; Yu, Aibing; et al.  
Edited by: Zeng, JM; Kim, YH; Chen, YF

Conference: International Conference on Chemical, Material and Metallurgical Engineering (ICCMME 2011) Location: Beihai, PEOPLES R CHINA Date: DEC 23-25, 2011  
 Sponsor(s): Guangxi Univ, China; Wuhan Univ Sci & Technol; Queensland Univ Technol  
 NEW MATERIALS, APPLICATIONS AND PROCESSES, PTS 1-3 Book Series: Advanced Materials Research Volume: 399-401 Pages: 847-+ Published: 2012

**13. Effect of Preparation Conditions on the Performance of Anodic Aluminum Oxide Films**  
 By: Liu, Xiaozhen; Yang, Junhua; Wang, Gang; et al.  
 Edited by: Zhang, H; Jin, D  
 Conference: 2nd International Conference on Mechanical Engineering, Industry and Manufacturing Engineering (MEIME 2012) Location: Hefei, PEOPLES R CHINA Date: JUN 23-24, 2012  
 APPLIED MECHANICS, MATERIALS, INDUSTRY AND MANUFACTURING ENGINEERING Book Series: Applied Mechanics and Materials Volume: 164 Pages: 223-+ Published: 2012

**14. Research on Effect of Erbium Salt in the Anodization of Aluminum**  
 By: Liu, Xiaozhen; Zhu, Liangwei; Wang, Gang; et al.  
 Edited by: Chen, SF; Jiang, B  
 Conference: 2nd International Conference on Materials Science and Engineering Application (ICMSEA 2012) Location: Xian, PEOPLES R CHINA Date: JAN 07-08, 2012  
 MATERIALS SCIENCE AND ENGINEERING APPLICATION II Book Series: Advanced Materials Research Volume: 413 Pages: 300-+ Published: 2012

#### ***14. Characterization of the plasma electrolytic oxidation of aluminium in sodium tungstate***

- 1. Alumina-Silica Composite Coatings on Aluminum by Plasma Electrolytic Oxidation: The Effect of Coating Time on Microstructure, Phase, and Corrosion Behavior**  
 By: Khakzad, A.; Khoi, S. M. Mousavi; Tayebifard, S. A.; et al.  
 JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE Volume: 26 Issue: 6  
 Pages: 2663-2670 Published: JUN 2017
- 2. Plasma electrolytic oxidation of magnesium and its alloys: Mechanism, properties and applications**  
 By: Darband, Gh. Barati; Aliofkhazraei, M.; Hamghalam, P.; et al.  
 JOURNAL OF MAGNESIUM AND ALLOYS Volume: 5 Issue: 1 Pages: 74-132  
 Published: MAR 2017
- 3. The effects of anion deposition and negative pulse on the behaviours of plasma electrolytic oxidation (PEO)-A systematic study of the PEO of a Zirlo alloy in aluminate electrolytes**  
 By: Cheng, Yingliang; Wang, Ting; Li, Shaoxian; et al.  
 ELECTROCHIMICA ACTA Volume: 225 Pages: 47-68 Published: JAN 20 2017
- 4. Growth kinetics and morphology of plasma electrolytic oxidation coating on aluminum**  
 By: Erfanifar, Eliyas; Aliofkhazraei, Mahmood; Nabavi, Houman Fakhr; et al.  
 MATERIALS CHEMISTRY AND PHYSICS Volume: 185 Pages: 162-175 Published: JAN 1 2017
- 5. A mechanism for the growth of a plasma electrolytic oxide coating on Al**  
 By: Zhu, Lujun; Guo, Zhenxi; Zhang, Yuefei; et al.

- ELECTROCHIMICA ACTA Volume: 208 Pages: 296-303 Published: AUG 1 2016
- 6.** The formation of tungsten doped Al<sub>2</sub>O<sub>3</sub>/ZnO coatings on aluminum by plasma electrolytic oxidation and their application in photocatalysis  
By: Stojadinovic, Stevan; Vasilic, Rastko; Radic, Nenad; et al.  
APPLIED SURFACE SCIENCE Volume: 377 Pages: 37-43 Published: JUL 30 2016
- 7.** Sliding wear behaviour and microstructure of PEO coatings formed on aluminium alloy  
By: Zhuang, J. J.; Guo, Y. Q.; Xiang, N.; et al.  
MATERIALS SCIENCE AND TECHNOLOGY Volume: 32 Issue: 15 Pages: 1559-1566
- 8.** Synthesis and characterization of Al<sub>2</sub>O<sub>3</sub>/ZnO coatings formed by plasma electrolytic oxidation  
By: Stojadinovic, S.; Tadic, N.; Radic, N.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 276 Pages: 573-579 Published: AUG 25 2015
- 9.** Application of porous oxide layer in plastic/metal direct adhesion by injection molding  
By: Yeh, Ren-Yu; Hsu, Ray-Quen  
JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY Volume: 29 Issue: 15 Pages: 1617-1627 Published: AUG 3 2015
- 10.** Corrosion properties of plasma electrolytic oxidation coatings on an aluminium alloy - The effect of the PEO process stage  
By: Dehnavi, Vahid; Shoesmith, David W.; Luan, Ben Li; et al.  
MATERIALS CHEMISTRY AND PHYSICS Volume: 161 Pages: 49-58 Published: JUL 1 2015
- 11.** Correlation between plasma electrolytic oxidation treatment stages and coating microstructure on aluminum under unipolar pulsed DC mode  
By: Dehnavi, Vahid; Luan, Ben Li; Liu, Xing Yang; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 269 Pages: 91-99 Published: MAY 15 2015
- 12.** Fabrication of hydroxyapatite on pure titanium by micro-arc oxidation coupled with microwave-hydrothermal treatment  
By: Zhao, Quan-ming; Yang, Hui-lin; Liu, Zhong-tang; et al.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE Volume: 26 Issue: 2 Article Number: 88 Published: FEB 2015
- 13.** One-step preparation and photocatalytic performance of vanadium doped TiO<sub>2</sub> coatings  
By: Vasilic, R.; Stojadinovic, S.; Radic, N.; et al.  
MATERIALS CHEMISTRY AND PHYSICS Volume: 151 Pages: 337-344 Published: FEB 1 2015
- 14.** Study on coating growth characteristics during the electrolytic oxidation of a magnesium-lithium alloy by optical emission spectroscopy analysis  
By: Yao, Zhongping; Xia, Qixing; Wei, Han; et al.  
RSC ADVANCES Volume: 5 Issue: 84 Pages: 68806-68814 Published: 2015
- 15.** Effects of pulsed current on plasma electrolytic oxidation  
By: Mann, R.; Hansal, W. E. G.; Hansal, S.  
TRANSACTIONS OF THE INSTITUTE OF METAL FINISHING Volume: 92 Issue: 6 Pages: 297-304 Published: DEC 2014

- 16.** Plasma electrolytic oxidation of an Al-Cu-Li alloy in alkaline aluminate electrolytes: A competition between growth and dissolution for the initial ultra-thin films  
By: Cheng, Ying-liang; Mao, Mo-ke; Cao, Jin-hui; et al.  
ELECTROCHIMICA ACTA Volume: 138 Pages: 417-429 Published: AUG 20 2014
- 17.** Investigation on the corrosion behaviour and microstructure of 2024-T3 Al alloy treated via plasma electrolytic oxidation  
By: Fadaee, Hossein; Javidi, Mehdi  
JOURNAL OF ALLOYS AND COMPOUNDS Volume: 604 Pages: 36-42 Published: AUG 15 2014
- 18.** The tribological properties of bioceramic coatings produced on Ti6Al4V alloy by plasma electrolytic oxidation  
By: Durdu, Salih; Usta, Metin  
CERAMICS INTERNATIONAL Volume: 40 Issue: 2 Pages: 3627-3635 Published: MAR 2014
- 19.** Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review  
By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko  
RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014
- 20.** Tungstate ion-assisted hydrothermal conversion of magnesium hydroxide coatings on AZ31 magnesium alloy  
By: Wang, Yongsheng; Tan, Ming-Jen; Chua, Beng Wah; et al.  
INTERNATIONAL JOURNAL OF SURFACE SCIENCE AND ENGINEERING Volume: 8 Issue: 2-3 Pages: 188-200 Published: 2014
- 21.** Plasma electrolytic oxidation of 2024-T3 aluminum alloy and investigation on microstructure and wear behavior  
By: Javidi, Mehdi; Fadaee, Hossein  
APPLIED SURFACE SCIENCE Volume: 286 Pages: 212-219 Published: DEC 1 2013
- 22.** The effect of MAO processing time on surface properties and low temperature infrared emissivity of ceramic coating on aluminium 6061 alloy  
By: Al Bosta, Mohannad M. S.; Ma, Keng-Jeng; Chien, Hsi-Hsin  
INFRARED PHYSICS & TECHNOLOGY Volume: 60 Pages: 323-334 Published: SEP 2013
- 23.** Corrosion Stability of Oxide Coatings Formed by Plasma Electrolytic Oxidation of Aluminum: Optimization of Process Time  
By: Bajat, J. B.; Vasilic, R.; Stojadinovic, S.; et al.  
CORROSION Volume: 69 Issue: 7 Pages: 693-702 Published: JUL 2013
- 24.** Formation of dicalcium phosphate dihydrate on magnesium alloy by micro-arc oxidation coupled with hydrothermal treatment  
By: Chang, Limin; Tian, Lifeng; Liu, Wei; et al.  
CORROSION SCIENCE Volume: 72 Pages: 118-124 Published: JUL 2013
- 25.** Effects of electrical parameters on plasma electrolytic oxidation of aluminium  
By: Martin, J.; Melhem, A.; Shchedrina, I.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 221 Pages: 70-76 Published: APR 25 2013



- 26.** An elevated temperature infrared emissivity ceramic coating formed on 2024 aluminium alloy by microarc oxidation  
By: Wang, Y. M.; Tian, H.; Shen, X. E.; et al.  
CERAMICS INTERNATIONAL Volume: 39 Issue: 3 Pages: 2869-2875 Published: APR 2013
- 27.** Plasma electrolytic oxidation of metals  
By: Stojadinovic, Stevan  
JOURNAL OF THE SERBIAN CHEMICAL SOCIETY Volume: 78 Issue: 5 Pages: 713-716
- 28.** Effect of Carrier Waveform Frequency on the Microstructure of Al<sub>2</sub>O<sub>3</sub> Plasma Electrolytic Oxidation Films  
By: Guo, Xinghua; Du, Kebin; Guo, Quanzhong; et al.  
ECS ELECTROCHEMISTRY LETTERS Volume: 2 Issue: 4 Pages: C11-C14 Published: 2013
- 29.** Peculiarities of iron-containing microplasma coating deposition on aluminum in homogeneous electrolyte  
By: Rogov, A. B.; Slonova, A. I.; Shayapov, V. R.  
APPLIED SURFACE SCIENCE Volume: 261 Pages: 647-652 Published: NOV 15 2012
- 30.** Spectroscopic study of plasma during electrolytic oxidation of magnesium- and aluminium-alloy  
By: Jovovic, J.; Stojadinovic, S.; Sisovic, N. M.; et al.  
JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER Volume: 113 Issue: 15 Pages: 1928-1937 Published: OCT 2012
- 31.** Photocatalytic decomposition of N-methyl-2-pyrrolidone, aldehydes, and thiol by biphasic and p/n junction-like organic semiconductor composite nanoparticles responsive to nearly full spectrum of visible light  
By: Zhang, Shuai; Arunachalam, Prabhakaran; Abe, Toshiyuki; et al.  
JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY Volume: 244 Pages: 18-23 Published: SEP 15 2012
- 32.** The influences of microdischarge types and silicate on the morphologies and phase compositions of plasma electrolytic oxidation coatings on Zircaloy-2  
By: Cheng, Yingliang; Wu, Fan; Matykina, E.; et al.  
CORROSION SCIENCE Volume: 59 Pages: 307-315 Published: JUN 2012  
Full Text from Publisher
- 33.** The influence of sodium tungstate concentration and anodizing conditions on microarc oxidation (MAO) coatings for aluminum alloy  
By: Tseng, Chun-Chieh; Lee, Jeou-Long; Kuo, Tzu-Hsuan; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 16 Pages: 3437-3443  
Published: APR 15 2012
- 34.** Correlations between the optical emission spectra and microstructure of microplasma coatings on aluminum 2024 alloy  
By: Rogov, A. B.; Shayapov, V. R.  
APPLIED SURFACE SCIENCE Volume: 258 Issue: 11 Pages: 4871-4876 Published: MAR 15 2012

- 35.** TEM analysis and wear resistance of the ceramic coatings on Q235 steel prepared by hybrid method of hot-dipping aluminum and plasma electrolytic oxidation  
By: Lu Lihong; Zhang Jingwu; Shen Dejiu; et al.  
JOURNAL OF ALLOYS AND COMPOUNDS Volume: 512 Issue: 1 Pages: 57-62  
Published: JAN 25 2012
- 36.** TEM analysis and corrosion resistance of the ceramic coatings on Q235 steel prepared by hybrid method of hot-dipping aluminum and plasma electrolytic oxidation  
By: Lu Lihong; Shen Dejiu; Zhang Jingwu; et al.  
Book Author(s): Jin, W  
Conference: International Conference on Mechanical Engineering and Materials (ICMEM)  
Location: Melbourne, AUSTRALIA Date: JAN 15-16, 2012  
MECHANICAL ENGINEERING AND MATERIALS, PTS 1-3 Book Series: Applied Mechanics and Materials Volume: 152-154 Pages: 40-+ Published: 2012
- 37.** Plasma electrolytic oxidation of titanium in heteropolytungstate acids  
By: Stojadinovic, S.; Vasilic, R.; Petkovic, M.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 2-3 Pages: 575-581  
Published: OCT 25 2011
- 38.** Spectroscopic characterization of plasma during electrolytic oxidation (PEO) of aluminium  
By: Jovovic, J.; Stojadinovic, S.; Sisovic, N. M.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 1 Pages: 24-28 Published: OCT 15 2011
- 39.** Characterization of oxide coatings formed on tantalum by plasma electrolytic oxidation in 12-tungstosilicic acid  
By: Petkovic, M.; Stojadinovic, S.; Vasilic, R.; et al.  
APPLIED SURFACE SCIENCE Volume: 257 Issue: 24 Pages: 10590-10594 Published: OCT 1 2011
- 40.** Spectroscopic and real-time imaging investigation of tantalum plasma electrolytic oxidation (PEO)  
By: Stojadinovic, S.; Jovovic, J.; Petkovic, M.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 205 Issue: 23-24 Pages: 5406-5413  
Published: SEP 25 2011

### ***15. Luminescence properties of oxide films formed by anodization of aluminum in 12-tungstophosphoric acid***

- 1.** Novel anodic oxide film with self-sealing layer showing excellent corrosion resistance  
By: Wu, Yinghao; Zhao, Wenjie; Wang, Wurong; et al.  
SCIENTIFIC REPORTS Volume: 7 Article Number: 1344 Published: MAY 2 2017
- 2.** The Influence of Current Density and Frequency on the Microstructure and Corrosion Behavior of Plasma Electrolytic Oxidation Coatings on Ti6Al4V  
By: Khanmohammadi, H.; Allahkaram, S. R.; Igual Munoz, A.; et al.  
JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE Volume: 26 Issue: 2  
Pages: 931-944 Published: FEB 2017
- 3.** Effects of alumina nanoparticles concentration on microstructure and corrosion behavior of coatings formed on titanium substrate via PEO process

By: Sarbishei, Sahand; Sani, Mohammad Ali Faghihi; Mohammadi, Mohammad Reza  
CERAMICS INTERNATIONAL Volume: 42 Issue: 7 Pages: 8789-8797 Published: MAY 15 2016

**4.** Preparation of PEO coating on Ti6Al4V in different electrolytes and evaluation of its properties

By: Khanmohammadi, H.; Allahkaram, S. R.; Towhidi, N.; et al.

SURFACE ENGINEERING Volume: 32 Issue: 6 Pages: 448-456 Published: 2016

**5.** Anodic luminescence, structural, photoluminescent, and photocatalytic properties of anodic oxide films grown on niobium in phosphoric acid

By: Stojadinovic, Stevan; Tadic, Nenad; Radic, Nenad; et al.

APPLIED SURFACE SCIENCE Volume: 355 Pages: 912-920 Published: NOV 15 2015

**6.** Analyses of reinforcement phases during plasma electrolytic oxidation on magnesium matrix composites

By: Liu, Run; Weng, Ning; Xue, Wenbin; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 269 Pages: 212-219 Published: MAY 15 2015

**7.** Characterization of Porous Anodic Aluminum Oxide Films by Luminescence Methods - A Review

By: Stojadinovic, Stevan; Vasilic, Rastko

CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 547-559 Published: 2015

**8.** A Review of Quantitative Arrangement Analysis Methods Applied to Nanostructured Anodic Oxides Characterization

By: Nowak-Stepniowska, Agata

CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 581-592 Published: 2015 .

**9.** Ultrasmall nanopores obtained by electric field enhanced one-step anodisation of aluminium alloy

By: Wang, J. Y.; Li, C.; Yin, C. Y.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 258 Pages: 615-623 Published: NOV 15 2014

**10.** Discharge behaviors during plasma electrolytic oxidation on aluminum alloy

By: Liu, Run; Wu, Jie; Xue, Wenbin; et al.

MATERIALS CHEMISTRY AND PHYSICS Volume: 148 Issue: 1-2 Pages: 284-292  
Published: NOV 14 2014

**11.** Plasma electrolytic oxidation of an Al-Cu-Li alloy in alkaline aluminate electrolytes: A competition between growth and dissolution for the initial ultra-thin films

By: Cheng, Ying-liang; Mao, Mo-ke; Cao, Jin-hui; et al.

ELECTROCHIMICA ACTA Volume: 138 Pages: 417-429 Published: AUG 20 2014

**12.** Plasma electrolytic oxidation coatings in KOH electrolyte and its discharge characteristics

By: Wang, Li; Fu, Wen; Wang, Shiqin; et al.

JOURNAL OF ALLOYS AND COMPOUNDS Volume: 594 Pages: 27-31 Published: MAY 5 2014

**13.** Corrosion Evaluation of Zirconium Doped Oxide Coatings on Aluminum Formed by Plasma Electrolytic Oxidation

By: Bajat, Jelena B.; Miskovic-Stankovic, Vesna; Vasilic, Rastko; et al.

ACTA CHIMICA SLOVENICA Volume: 61 Issue: 2 Pages: 308-315 Published: 2014

**14. Incorporation of copper chelate ions into anodic alumina walls**

By: Stepniowski, Wojciech J.; Norek, Malgorzata; Michalska-Domanska, Marta; et al.

MATERIALS LETTERS Volume: 106 Pages: 242-245 Published: SEP 1 2013

**15. Plasma electrolytic oxidation of metals**

By: Stojadinovic, Stevan

JOURNAL OF THE SERBIAN CHEMICAL SOCIETY Volume: 78 Issue: 5 Pages: 713-716  
Published: 2013

**16. The influences of microdischarge types and silicate on the morphologies and phase compositions of plasma electrolytic oxidation coatings on Zircaloy-2**

By: Cheng, Yingliang; Wu, Fan; Matykina, E.; et al.

CORROSION SCIENCE Volume: 59 Pages: 307-315 Published: JUN 2012

**17. Plasma electrolytic oxidation of titanium in heteropolytungstate acids**

By: Stojadinovic, S.; Vasilic, R.; Petkovic, M.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 2-3 Pages: 575-581  
Published: OCT 25 2011

**18. Spectroscopic and real-time imaging investigation of tantalum plasma electrolytic oxidation (PEO)**

By: Stojadinovic, S.; Jovovic, J.; Petkovic, M.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 205 Issue: 23-24 Pages: 5406-5413  
Published: SEP 25 2011

**19. Evolution of active species and discharge sparks in Na<sub>2</sub>SiO<sub>3</sub> electrolyte during PEO process**

By: Wang, Li; Fu, Wen; Chen, Li

JOURNAL OF ALLOYS AND COMPOUNDS Volume: 509 Issue: 28 Pages: 7652-7656  
Published: JUL 14 2011

**20. Optical emission spectroscopy studies of discharge mechanism and plasma characteristics during plasma electrolytic oxidation of magnesium in different electrolytes**

By: Wang, Li; Chen, Li; Yan, Zongcheng; et al.

Conference: EUROMAT 2009 Congress on Advanced Materials and Processes Location: Glasgow, SCOTLAND Date: SEP 07-10, 2009

SURFACE & COATINGS TECHNOLOGY Volume: 205 Issue: 6 Special Issue: SI Pages: 1651-1658  
Published: DEC 15 2010

***16. Large single crystals of isomorphous hexaaquametal(II) D-camphor10- sulfonates***

**1. Three New Coordination Polymers Constructed by Adjusting the Angles of Pyridyl or Imidazolyl-based Synthons: Structures and Solid UV-vis Properties**

By: Zhou Chun-Hui; Zhou Jie; Hu Zhen-Yuan; et al.

CHINESE JOURNAL OF STRUCTURAL CHEMISTRY Volume: 35 Issue: 8 Pages: 1245-1252  
Published: AUG 2016

**2. Molecular tectonics of mixed-ligand metal-organic frameworks: Positional isomeric effect, and structural diversification**

By: Cai, Hua; Xu, Chong; Zhou, Yu-Ping; et al.

JOURNAL OF MOLECULAR STRUCTURE Volume: 1108 Pages: 263-268 Published: MAR 15 2016

**3.** An unprecedented acid/base stable Cu-based metal-organic framework with good catalytic activity for the reduction of 4-nitrophenol

By: Zhou, Chun-Hui; Wang, Yue-Ming; Jin, Kuang; et al.

INORGANIC CHEMISTRY COMMUNICATIONS Volume: 62 Pages: 81-84 Published: DEC 2015

**4.** Photochemical and Magnetic Properties of Seven New Metal-Organic Frameworks Constructed by Flexible Tetrapyridines and V-Shaped Polycarboxylate Acids

By: Hu, Jin-Song; Huang, Xin-Hua; Pan, Cheng-Ling; et al.

CRYSTAL GROWTH & DESIGN Volume: 15 Issue: 5 Pages: 2272-2281 Published: MAY 2015

**5.** Synthesis and spectroscopic properties of large single-crystals of Pb(II), Hg(II) and Sr(II) methanesulfonato 1D coordination polymers

By: Dordevic, Milena; Jeremic, Dejan; Kaluderovic, Goran N.; et al.

POLYHEDRON Volume: 80 Special Issue: SI Pages: 282-289 Published: SEP 25 2014

**6.** Construction of two new coordination polymers based on semirigid tripodal carboxylic acid

By: Hu, Jin-Song; Zhang, Lei; Zhang, Xiao-Mei; et al.

INORGANICA CHIMICA ACTA Volume: 421 Pages: 380-384 Published: SEP 1 2014

**7.** Synthesis, Structure and Property of Cobalt(II) Complex Constructed by 1,3-Dipyridyl Benzene and 4,4'-Bisulfonate Dibenzoic Acid

By: Wang Yue-Ming; Hu Jin-Song; Zhang Lei; et al.

CHINESE JOURNAL OF INORGANIC CHEMISTRY Volume: 30 Issue: 6 Pages: 1229-1233 Published: JUN 10 2014

**8.** Syntheses, structures and luminescent properties of six divalent metal terephthalate coordination polymers based on three new flexible bis(imidazole) ligands

By: Yuan, Wei-Guan; Xiong, Fang; Zhang, Hong-Ling; et al.

CRYSTENGCOMM Volume: 16 Issue: 33 Pages: 7701-7710 Published: 2014

**9.** Construction of a 3D Co(II) Framework Based on Two Types of V-shaped Bidentate Ligands

By: Hu Jin-Song; Zhang Lei; Shi Jian-Jun; et al.

CHINESE JOURNAL OF STRUCTURAL CHEMISTRY Volume: 33 Issue: 4 Pages: 579-584 Published: 2014

**10.** Cobalt(II) and cadmium(II) compounds with adamantane-1-sulfonic acid

By: Dordevic, Milena; Jeremic, Dejan; Andelkovic, Katarina; et al.

JOURNAL OF THE SERBIAN CHEMICAL SOCIETY Volume: 77 Issue: 10 Pages: 1391-1399 Published: 2012

**11.** Water Exchange Reactivity and Stability of Cobalt Polyoxometalates under Catalytically Relevant pH Conditions: Insight into Water Oxidation Catalysis

By: Lieb, Dominik; Zahl, Achim; Wilson, Elizabeth F.; et al.

INORGANIC CHEMISTRY Volume: 50 Issue: 18 Pages: 9053-9058 Published: SEP 19 2011

**12.** Six New Metal-Organic Frameworks Based on Polycarboxylate Acids and V-shaped Imidazole-Based Synthon: Syntheses, Crystal Structures, and Properties

By: Hu, Jinsong; Huang, Liangfang; Yao, Xiaoqiang; et al.

INORGANIC CHEMISTRY Volume: 50 Issue: 6 Pages: 2404-2414 Published: MAR 21 2011

**13.** Syntheses, Structures, and Photochemical Properties of Six New Metal-Organic Frameworks Based on Aromatic Dicarboxylate Acids and V-Shaped Imidazole Ligands

By: Hu, Jin-Song; Shang, Yong-Jia; Yao, Xiao-Qiang; et al.

CRYSTAL GROWTH & DESIGN Volume: 10 Issue: 9 Pages: 4135-4142 Published: SEP 2010

**14.** Syntheses, Characterizations, and Properties of Six Metal-Organic Complexes Based on Flexible Ligand 5-(4-Pyridyl)-methoxyl Isophthalic Acid

By: Qin, Ling; Hu, Jin-Song; Huang, Liang-Fang; et al.

CRYSTAL GROWTH & DESIGN Volume: 10 Issue: 9 Pages: 4176-4183 Published: SEP 2010

**15.** Syntheses, Structures, and Photoluminescence of Five New Metal-Organic Frameworks Based on Flexible Tetrapyridines and Aromatic Polycarboxylate Acids

By: Hu, Jin-Song; Shang, Yong-Jia; Yao, Xiao-qiang; et al.

CRYSTAL GROWTH & DESIGN Volume: 10 Issue: 6 Pages: 2676-2684 Published: JUN 2010

***17. The effect of annealing on the photoluminescent and optical properties of porous anodic alumina films formed in sulfamic acid***

**1.** Nanoporous anodic alumina photonic crystals: fundamentals, developments and perspectives  
By: Santos, Abel

JOURNAL OF MATERIALS CHEMISTRY C Volume: 5 Issue: 23 Pages: 5581-5599  
Published: JUN 21 2017

**2.** Photoluminescent properties of nanoporous anodic alumina doped with manganese ions

By: Gasenkova, I. V.; Mukhurov, N. I.; Zhvavyi, S. P.; et al.

JOURNAL OF LUMINESCENCE Volume: 185 Pages: 298-305 Published: MAY 2017

**3.** Study of the fabrication of porous anodic alumina thin films with rainbow rings

By: Yang, Shumin; Li, Haitao; Han, Wei; et al.

THIN SOLID FILMS Volume: 615 Pages: 190-194 Published: SEP 30 2016

**4.** Pore diameter-dependence photoluminescence spectra for porous anodized aluminum oxide membranes fabricated in different acid solutions

By: Lv, Hong-Hou; Wang, Xue-Wei; Kang, Yao-Ren; et al.

JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS Volume: 18 Issue: 3-4 Pages: 275-280 Published: MAR-APR 2016

**5.** Luminescence Characteristics of Nanoporous Anodic Alumina Annealed at Different Temperatures

By: Ilin, D. O.; Vokhmintsev, A. S.; Weinstein, I. A.

Edited by: Rempel, AA; Volkovich, VA

Conference: 3rd International Young Researchers Conference - Physics, Technologies and Innovation (PTI) Location: Ekaterinburg, RUSSIA Date: MAY 16-20, 2016

PHYSICS, TECHNOLOGIES AND INNOVATION (PTI-2016) Book Series: AIP Conference Proceedings Volume: 1767 Article Number: 020028 Published: 2016

- 6. Compactness of coatings treated by MAO and LSM on Ti alloy**  
 By: Wang, Fengbiao; Hou, Bo; Yuan, Kai; et al.  
 EMERGING MATERIALS RESEARCH Volume: 4 Issue: 2 Pages: 265-272 Published: DEC 2015
- 7. Engineering optical properties of metal/porous anodic alumina films for refractometric sensing**  
 By: Wang, Lanfang; Qin, Xiufang; Ji, Dengxin; et al.  
 APPLIED SURFACE SCIENCE Volume: 355 Pages: 139-144 Published: NOV 15 2015  
 Full Text from Publisher
- 8. Study of Compactness of Micro-Arc Oxidation Coating Treated by Laser Surface Melting on TC4 Surface**  
 By: Wang, Fengbiao; Wang, Yongqing; Zhang, Jinbao; et al.  
 MATERIALS FOCUS Volume: 4 Issue: 2 Pages: 118-123 Published: APR 2015
- 9. Low-cost fabrication technologies for nanostructures: state-of-the-art and potential**  
 By: Santos, A.; Deen, M. J.; Marsal, L. F.  
 NANOTECHNOLOGY Volume: 26 Issue: 4 Article Number: 042001 Published: JAN 30 2015
- 10. Structural, optical and thermal properties of nanoporous aluminum**  
 By: Ghrib, Taher  
 THERMOCHIMICA ACTA Volume: 599 Pages: 57-62 Published: JAN 15 2015
- 11. Characterization of Porous Anodic Aluminum Oxide Films by Luminescence Methods - A Review**  
 By: Stojadinovic, Stevan; Vasilic, Rastko  
 CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 547-559 Published: 2015
- 12. Porous Aluminum Oxide Formed by Anodizing in Various Electrolyte Species**  
 By: Kikuchi, Tatsuya; Nakajima, Daiki; Nishinaga, Osamu; et al.  
 CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 560-571 Published: 2015
- 13. A Review of Quantitative Arrangement Analysis Methods Applied to Nanostructured Anodic Oxides Characterization**  
 By: Nowak-Stepniowska, Agata  
 CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 581-592 Published: 2015
- 14. Determination of Sulfuric Acid Concentration for Anti-Cavitation Characteristics of Al Alloy by Two Step Anodizing Process to Forming Nano Porous**  
 By: Lee, Seung-Jun; Kim, Seong-Kweon; Jeong, Jae-Yong; et al.  
 JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY Volume: 14 Issue: 12 Pages: 9572-9578 Published: DEC 2014
- 15. Heat treatment and photoluminescence of 3-D vertical arrays of Al<sub>2</sub>O<sub>3</sub> nanopores on Al fabrics or foils**  
 By: Fang, Dong; Li, Licheng; Xu, Weilin; et al.  
 MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS Volume: 179 Pages: 71-76 Published: JAN 2014
- 16. Enhancing aluminum corrosion resistance by two-step anodizing process**  
 By: Bouchama, L.; Azzouz, N.; Boukrnouch, N.; et al.  
 SURFACE & COATINGS TECHNOLOGY Volume: 235 Pages: 676-684 Published: NOV 25 2013

- 17. Nanoporous anodic aluminum oxide for chemical sensing and biosensors**  
 By: Santos, Abel; Kumeria, Tushar; Losic, Dusan  
 TRAC-TRENDS IN ANALYTICAL CHEMISTRY Volume: 44 Pages: 25-38 Published: MAR 2013
- 18. Energy transfer in porous anodic alumina/rhodamine 110 nanocomposites**  
 By: Elhouichet, H.; Harima, N.; Koyama, H.; et al.  
 JOURNAL OF LUMINESCENCE Volume: 132 Issue: 9 Pages: 2232-2234 Published: SEP 2012
- 19. Structural tuning of photoluminescence in nanoporous anodic alumina by hard anodization in oxalic and malonic acids**  
 By: Santos, Abel; Alba, Maria; Rahman, Mahbubur M.; et al.  
 NANOSCALE RESEARCH LETTERS Volume: 7 Article Number: 228 Published: APR 19 2012
- 20. Effect of annealing on photoluminescence and optical properties of porous anodic alumina films formed in sulfuric acid for solar energy applications**  
 By: Ghrib, Mondher; Ouertani, Rachid; Gaidi, Monir; et al.  
 APPLIED SURFACE SCIENCE Volume: 258 Issue: 12 Pages: 4995-5000 Published: APR 1 2012
- 21. Effect of Neodymium Salt in the Anodization of Aluminum in Sulphuric Acid**  
 By: Liu, Xiaozhen; Gen, Jianqiang; Yu, Aibing; et al.  
 Edited by: Bu, JL; Jiang, ZY; Jiao, S  
 Conference: 2nd International Conference on Advances in Materials and Manufacturing Processes (ICAMMP 2011) Location: Guilin, PEOPLES R CHINA Date: DEC 16-18, 2011  
 ADVANCED MATERIALS, PTS 1-3 Book Series: Advanced Materials Research Volume: 415-417 Pages: 1895-+ Published: 2012
- 22. Effect of Preparation Conditions on the Performance of Anodic Aluminum Oxide Films**  
 By: Liu, Xiaozhen; Yang, Junhua; Wang, Gang; et al.  
 Edited by: Zhang, H; Jin, D  
 Conference: 2nd International Conference on Mechanical Engineering, Industry and Manufacturing Engineering (MEIME 2012) Location: Hefei, PEOPLES R CHINA Date: JUN 23-24, 2012  
 APPLIED MECHANICS, MATERIALS, INDUSTRY AND MANUFACTURING ENGINEERING Book Series: Applied Mechanics and Materials Volume: 164 Pages: 223-+ Published: 2012
- 23. Research on Effect of Erbium Salt in the Anodization of Aluminum**  
 By: Liu, Xiaozhen; Zhu, Liangwei; Wang, Gang; et al.  
 Edited by: Chen, SF; Jiang, B  
 Conference: 2nd International Conference on Materials Science and Engineering Application (ICMSEA 2012) Location: Xian, PEOPLES R CHINA Date: JAN 07-08, 2012  
 MATERIALS SCIENCE AND ENGINEERING APPLICATION II Book Series: Advanced Materials Research Volume: 413 Pages: 300-+ Published: 2012
- 24. Optical properties and color generation mechanism of porous anodic alumina films**  
 By: Xu, Qin; Sun, Hui-Yuan; Yang, Yu-Hua; et al.



APPLIED SURFACE SCIENCE Volume: 258 Issue: 5 Pages: 1826-1830 Published: DEC 15 2011

**25. Morphology and transmittance of porous alumina on glass substrate**

By: Guo Peitao; Xia Zhilin; Xue Yiyu; et al.

APPLIED SURFACE SCIENCE Volume: 257 Issue: 8 Pages: 3307-3312 Published: FEB 1 2011

**26. Effects of Anodic Oxidation Process on Transmittance of Porous Alumina on Glass Substrate**

By: Guo Peitao; Xia Zhilin; Xue Yiyu; et al.

Edited by: Zhu, G

Conference: International Conference on Materials Science and Engineering Science Location: Shenzhen, PEOPLES R CHINA Date: DEC 11-12, 2010

MATERIALS SCIENCE AND ENGINEERING, PTS 1-2 Book Series: Advanced Materials Research Volume: 179-180 Pages: 274-278 Part: 1, 2 Published: 2011

**18. *Electronic transitions during plasma electrolytic oxidation of aluminum***

**1. Effects of silicate ion concentration on the formation of ceramic oxide layers produced by plasma electrolytic oxidation on Al alloy**

By: Lee, Jung-Hyung; Kim, Seong-Jong

JAPANESE JOURNAL OF APPLIED PHYSICS Volume: 56 Issue: 1 Special Issue: SI Article Number: 01AB01 Published: JAN 2017

**2. Formation and characterization of ZnO films on zinc substrate by plasma electrolytic oxidation**

By: Stojadinovic, Stevan; Tadic, Nenad; Vasilic, Rastko

SURFACE & COATINGS TECHNOLOGY Volume: 307 Pages: 650-657 Part: A Published: DEC 15 2016

**3. Aluminum Anodization in Deionized Water as Electrolyte**

By: Lisenkov, Aleksey D.; Poznyak, Sergey K.; Zheludkevich, Mikhail L.; et al.

JOURNAL OF THE ELECTROCHEMICAL SOCIETY Volume: 163 Issue: 7 Pages: C364-C368 Published: 2016

**4. Synchronised electrical monitoring and high speed video of bubble growth associated with individual discharges during plasma electrolytic oxidation**

By: Troughton, S. C.; Nomine, A.; Nomine, A. V.; et al.

APPLIED SURFACE SCIENCE Volume: 359 Pages: 405-411 Published: DEC 30 2015

**5. In-situ fabrication of catalytic metal oxide films in microchannel by plasma electrolytic oxidation**

By: Yu, Xiwen; Chen, Li; He, Yongyi; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 269 Pages: 30-35 Published: MAY 15 2015

**6. High speed video evidence for localised discharge cascades during plasma electrolytic oxidation**

By: Nomine, A.; Troughton, S. C.; Nomine, A. V.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 269 Pages: 125-130 Published: MAY 15 2015

7. Characterization of submicron-size layer produced by pulsed bipolar plasma electrolytic carbonitriding  
By: Tavakoli, H.; Khoie, S. M. Mousavi; Marashi, S. P. H.; et al.  
JOURNAL OF ALLOYS AND COMPOUNDS Volume: 583 Pages: 382-389 Published: JAN 15 2014
8. Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review  
By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko  
RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014
9. TEM analysis and wear resistance of the ceramic coatings on Q235 steel prepared by hybrid method of hot-dipping aluminum and plasma electrolytic oxidation  
By: Lu Lihong; Zhang Jingwu; Shen Dejiu; et al.  
JOURNAL OF ALLOYS AND COMPOUNDS Volume: 512 Issue: 1 Pages: 57-62  
Published: JAN 25 2012
10. TEM analysis and corrosion resistance of the ceramic coatings on Q235 steel prepared by hybrid method of hot-dipping aluminum and plasma electrolytic oxidation  
By: Lu Lihong; Shen Dejiu; Zhang Jingwu; et al.  
Book Author(s): Jin, W  
Conference: International Conference on Mechanical Engineering and Materials (ICMEM)  
Location: Melbourne, AUSTRALIA Date: JAN 15-16, 2012  
MECHANICAL ENGINEERING AND MATERIALS, PTS 1-3 Book Series: Applied Mechanics and Materials Volume: 152-154 Pages: 40-+ Published: 2012
11. Self-similar scaling of discharge events through PEO coatings on aluminium  
By: Dunleavy, C. S.; Curran, J. A.; Clyne, T. W.  
SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 6 Pages: 1051-1061  
Published: DEC 15 2011
12. Spectroscopic characterization of plasma during electrolytic oxidation (PEO) of aluminium  
By: Jovovic, J.; Stojadinovic, S.; Sisovic, N. M.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 1 Pages: 24-28 Published: OCT 15 2011
13. Spectroscopic and real-time imaging investigation of tantalum plasma electrolytic oxidation (PEO)  
By: Stojadinovic, S.; Jovovic, J.; Petkovic, M.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 205 Issue: 23-24 Pages: 5406-5413  
Published: SEP 25 2011
14. Spectroscopic study of electrolytic plasma and discharging behaviour during the plasma electrolytic oxidation (PEO) process  
By: Hussein, R. O.; Nie, X.; Northwood, D. O.; et al.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS Volume: 43 Issue: 10 Article Number: 105203 Published: MAR 17 2010
15. Characterization of Bronze Surface Layer Formed by Microarc Oxidation Process in 12-Tungstophosphoric Acid  
By: Mioc, Ubavka B.; Stojadinovic, Stevan; Nedic, Zoran  
MATERIALS Volume: 3 Issue: 1 Pages: 110-126 Published: JAN 2010

**19. Metrological assurance of biodevices: The new method of calibration of biochemical analyzers**

1. Establishing traceability of photometric absorbance values for accurate measurements of the haemoglobin concentration in blood

By: Witt, K.; Wolf, H. U.; Heuck, C.; et al.

METROLOGIA Volume: 50 Issue: 5 Pages: 539-548 Published: OCT 2013

**20. Structural and luminescence characterization of porous anodic oxide films on aluminum formed in sulfamic acid solution**

1. Investigation of roughness and specular quality of commercial aluminum (6061 alloy) for fabrication of nanoporous anodic alumina films

By: Mendes, Leticia F.; Moraes, Ariana S.; Santos, Janaina S.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 310 Pages: 199-206 Published: JAN 25 2017

2. Scratch behavior of aluminum anodized in oxalic acid: Effect of anodizing potential

By: Choudhary, R. K.; Mishra, P.; Kain, V.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 283 Pages: 135-147 Published: DEC 15 2015

3. Polymer nanoimprinting using an anodized aluminum mold for structural coloration

By: Kikuchi, Tatsuya; Nishinaga, Osamu; Natsui, Shungo; et al.

APPLIED SURFACE SCIENCE Volume: 341 Pages: 19-27 Published: JUN 30 2015

4. A comparative study of electrochemical barrier layer thinning for anodic aluminum oxide grown on technical purity aluminum

By: Stepniowski, Wojciech J.; Florkiewicz, Wioletta; Michalska-Domanska, Marta; et al.

JOURNAL OF ELECTROANALYTICAL CHEMISTRY Volume: 741 Pages: 80-86  
Published: MAR 15 2015

5. Investigation of the Ordering of Porous Anodic Alumina Formed by Anodization of Aluminum in Selenic Acid

By: Nazarkina, Yulia; Gavrilov, Sergei; Terryn, Herman; et al.

JOURNAL OF THE ELECTROCHEMICAL SOCIETY Volume: 162 Issue: 9 Pages: E166-E172 Published: 2015 .

6. Characterization of Porous Anodic Aluminum Oxide Films by Luminescence Methods - A Review

By: Stojadinovic, Stevan; Vasilic, Rastko

CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 547-559 Published: 2015

7. Porous Aluminum Oxide Formed by Anodizing in Various Electrolyte Species

By: Kikuchi, Tatsuya; Nakajima, Daiki; Nishinaga, Osamu; et al.

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8. A Review of Quantitative Arrangement Analysis Methods Applied to Nanostructured Anodic Oxides Characterization

By: Nowak-Stepniowska, Agata

CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 581-592 Published: 2015

9. Anodization of cold deformed technical purity aluminum (AA1050) in oxalic acid  
By: Stepniowski, Wojciech J.; Michalska-Domanska, Marta; Norek, Malgorzata; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 258 Pages: 268-274 Published: NOV 15 2014
10. Plasma electrolytic oxidation coatings in KOH electrolyte and its discharge characteristics  
By: Wang, Li; Fu, Wen; Wang, Shiqin; et al.  
JOURNAL OF ALLOYS AND COMPOUNDS Volume: 594 Pages: 27-31 Published: MAY 5 2014
11. Fluorescence Detection and Imaging of Biomolecules Using the Micropatterned Nanostructured Aluminum Oxide  
By: Li, Xiang; He, Yuan; Que, Long  
LANGMUIR Volume: 29 Issue: 7 Pages: 2439-2445 Published: FEB 19 2013
12. Effect of annealing on photoluminescence and optical properties of porous anodic alumina films formed in sulfuric acid for solar energy applications  
By: Ghrib, Mondher; Ouertani, Rachid; Gaidi, Monir; et al.  
APPLIED SURFACE SCIENCE Volume: 258 Issue: 12 Pages: 4995-5000 Published: APR 1 2012
13. LUMINESCENCE PROPERTIES OF OXIDE COATINGS ON ALUMINUM ALLOYS  
By: Pershukevich, P. P.; Shabrov, D. V.; Osipov, V. P.; et al.  
JOURNAL OF APPLIED SPECTROSCOPY Volume: 78 Issue: 4 Pages: 524-533  
Published: SEP 2011
14. Evolution of active species and discharge sparks in Na<sub>2</sub>SiO<sub>3</sub> electrolyte during PEO process  
By: Wang, Li; Fu, Wen; Chen, Li  
JOURNAL OF ALLOYS AND COMPOUNDS Volume: 509 Issue: 28 Pages: 7652-7656  
Published: JUL 14 2011
15. Optical emission spectroscopy studies of discharge mechanism and plasma characteristics during plasma electrolytic oxidation of magnesium in different electrolytes  
By: Wang, Li; Chen, Li; Yan, Zongcheng; et al.  
Conference: EUROMAT 2009 Congress on Advanced Materials and Processes Location: Glasgow, SCOTLAND Date: SEP 07-10, 2009  
SURFACE & COATINGS TECHNOLOGY Volume: 205 Issue: 6 Special Issue: SI Pages: 1651-1658 Published: DEC 15 2010
16. Voltage-controlled negative resistance and electroluminescent spectra of Al-Al<sub>2</sub>O<sub>3</sub>-Au diodes  
By: Hickmott, T. W.  
JOURNAL OF APPLIED PHYSICS Volume: 106 Issue: 10 Article Number: 103719  
Published: NOV 15 2009

## ***21. Galvanoluminescence properties of porous oxide films formed by anodization of aluminum in malonic acid***

1. Scratch behavior of aluminum anodized in oxalic acid: Effect of anodizing potential  
By: Choudhary, R. K.; Mishra, P.; Kain, V.; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 283 Pages: 135-147 Published: DEC 15 2015

- 2. Characterization of plasma electrolytic oxidation of magnesium alloy AZ31 in alkaline solution containing fluoride**  
By: Stojadinovic, Stevan; Vasilic, Rastko; Radic-Peric, Jelena; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 273 Pages: 1-11 Published: JUL 15 2015
- 3. Process modelling and analysis of plasma electrolytic oxidation of titanium for TiO<sub>2</sub>/WO<sub>3</sub> thin film photocatalysts by response surface methodology**  
By: Petrovic, S.; Stojadinovic, S.; Rozic, Lj; et al.  
SURFACE & COATINGS TECHNOLOGY Volume: 269 Pages: 250-257 Published: MAY 15 2015
- 4. Characterization of Porous Anodic Aluminum Oxide Films by Luminescence Methods - A Review**  
By: Stojadinovic, Stevan; Vasilic, Rastko  
CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 547-559 Published: 2015
- 5. Porous Aluminum Oxide Formed by Anodizing in Various Electrolyte Species**  
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CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 560-571 Published: 2015
- 6. A Review of Quantitative Arrangement Analysis Methods Applied to Nanostructured Anodic Oxides Characterization**  
By: Nowak-Stepniowska, Agata  
CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 581-592 Published: 2015
- 7. Plasma electrolytic oxidation coatings in KOH electrolyte and its discharge characteristics**  
By: Wang, Li; Fu, Wen; Wang, Shiqin; et al.  
JOURNAL OF ALLOYS AND COMPOUNDS Volume: 594 Pages: 27-31 Published: MAY 5 2014
- 8. Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review**  
By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko  
RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014
- 9. Corrosion Evaluation of Zirconium Doped Oxide Coatings on Aluminum Formed by Plasma Electrolytic Oxidation**  
By: Bajat, Jelena B.; Miskovic-Stankovic, Vesna; Vasilic, Rastko; et al.  
ACTA CHIMICA SLOVENICA Volume: 61 Issue: 2 Pages: 308-315 Published: 2014
- 10. Spectroscopic Investigation of Direct Current (DC) Plasma Electrolytic Oxidation of Zirconium in Citric Acid**  
By: Stojadinovic, Stevan; Radic-Peric, Jelena; Vasilic, Rastko; et al.  
APPLIED SPECTROSCOPY Volume: 68 Issue: 1 Pages: 101-112 Published: JAN 2014
- 11. Corrosion Stability of Oxide Coatings Formed by Plasma Electrolytic Oxidation of Aluminum: Optimization of Process Time**  
By: Bajat, J. B.; Vasilic, R.; Stojadinovic, S.; et al.  
CORROSION Volume: 69 Issue: 7 Pages: 693-702 Published: JUL 2013
- 12. Spectroscopic study of plasma during electrolytic oxidation of magnesium- and aluminium-alloy**  
By: Jovovic, J.; Stojadinovic, S.; Sisovic, N. M.; et al.

JOURNAL OF QUANTITATIVE SPECTROSCOPY & RADIATIVE TRANSFER Volume: 113 Issue: 15 Pages: 1928-1937 Published: OCT 2012

**13.** Photocatalytic properties of TiO<sub>2</sub>/WO<sub>3</sub> coatings formed by plasma electrolytic oxidation of titanium in 12-tungstosilicic acid

By: Stojadinovic, S.; Radic, N.; Vasilic, R.; et al.

APPLIED CATALYSIS B-ENVIRONMENTAL Volume: 126 Pages: 334-341 Published: SEP 25 2012

**14.** Luminescence of the B-1 Sigma(+)-X-1 Sigma(+), band system of MgO during plasma electrolytic oxidation of magnesium alloy

By: Stojadinovic, S.; Peric, M.; Radic-Peric, J.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 11-12 Pages: 2905-2913 Published: FEB 15 2012

**15.** Plasma electrolytic oxidation of titanium in heteropolytungstate acids

By: Stojadinovic, S.; Vasilic, R.; Petkovic, M.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 2-3 Pages: 575-581 Published: OCT 25 2011

**16.** Spectroscopic characterization of plasma during electrolytic oxidation (PEO) of aluminium

By: Jovovic, J.; Stojadinovic, S.; Sisovic, N. M.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 206 Issue: 1 Pages: 24-28 Published: OCT 15 2011

**17.** Characterization of oxide coatings formed on tantalum by plasma electrolytic oxidation in 12-tungstosilicic acid

By: Petkovic, M.; Stojadinovic, S.; Vasilic, R.; et al.

APPLIED SURFACE SCIENCE Volume: 257 Issue: 24 Pages: 10590-10594 Published: OCT 1 2011

**18.** Spectroscopic and real-time imaging investigation of tantalum plasma electrolytic oxidation (PEO)

By: Stojadinovic, S.; Jovovic, J.; Petkovic, M.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 205 Issue: 23-24 Pages: 5406-5413 Published: SEP 25 2011

**19.** Evolution of active species and discharge sparks in Na<sub>2</sub>SiO<sub>3</sub> electrolyte during PEO process

By: Wang, Li; Fu, Wen; Chen, Li

JOURNAL OF ALLOYS AND COMPOUNDS Volume: 509 Issue: 28 Pages: 7652-7656 Published: JUL 14 2011

**20.** Optical emission spectroscopy studies of discharge mechanism and plasma characteristics during plasma electrolytic oxidation of magnesium in different electrolytes

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SURFACE & COATINGS TECHNOLOGY Volume: 205 Issue: 6 Special Issue: SI Pages: 1651-1658 Published: DEC 15 2010

**22. *Effect of aluminum annealing on the galvanoluminescence properties of anodic oxide films formed in organic electrolytes***

1. A Review of Quantitative Arrangement Analysis Methods Applied to Nanostructured Anodic Oxides Characterization

By: Nowak-Stepniowska, Agata

CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 581-592 Published: 2015

2. Ultrasmall nanopores obtained by electric field enhanced one-step anodisation of aluminium alloy

By: Wang, J. Y.; Li, C.; Yin, C. Y.; et al.

SURFACE & COATINGS TECHNOLOGY Volume: 258 Pages: 615-623 Published: NOV 15 2014

3. Formation of ceramic alumina nanocomposite coatings on aluminium for enhanced corrosion resistance

By: Raj, V.; Ali, M. Mubarak

JOURNAL OF MATERIALS PROCESSING TECHNOLOGY Volume: 209 Issue: 12-13  
Pages: 5341-5352 Published: JUL 1 2009

### ***23. Nature of galvanoluminescence of oxide films formed by aluminum anodization in inorganic electrolytes***

1. Light emission from electrodes under dielectrophoresis conditions

By: Tsai, Long-Fang; Gong, Hua; Dallon, Kathryn L.; et al.

JOURNAL OF MICRO-NANOLITHOGRAPHY MEMS AND MOEMS Volume: 15 Issue: 2  
Article Number: 025001 Published: APR 2016

2. A Review of Quantitative Arrangement Analysis Methods Applied to Nanostructured Anodic Oxides Characterization

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CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 581-592 Published: 2015

3. Porous Anodic Aluminum Oxide: Anodization and Templated Synthesis of Functional Nanostructures

By: Lee, Woo; Park, Sang-Joon

CHEMICAL REVIEWS Volume: 114 Issue: 15 Pages: 7487-7556 Published: AUG 13 2014

4. Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review

By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko

RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014

5. Spectroscopic Investigation of Direct Current (DC) Plasma Electrolytic Oxidation of Zirconium in Citric Acid

By: Stojadinovic, Stevan; Radic-Peric, Jelena; Vasilic, Rastko; et al.

APPLIED SPECTROSCOPY Volume: 68 Issue: 1 Pages: 101-112 Published: JAN 2014

6. Surface plasmon polariton enhanced electroluminescence and electron emission from electroformed Al-Al<sub>2</sub>O<sub>3</sub>-Ag diodes

By: Hickmott, T. W.

JOURNAL OF APPLIED PHYSICS Volume: 112 Issue: 7 Article Number: 073717  
Published: OCT 1 2012

**24. *The galvanoluminescence spectra of barrier oxide films on aluminum formed in organic electrolytes***

1. Characterization of Porous Anodic Aluminum Oxide Films by Luminescence Methods - A Review

By: Stojadinovic, Stevan; Vasilic, Rastko

CURRENT NANOSCIENCE Volume: 11 Issue: 5 Pages: 547-559 Published: 2015

2. Plasma electrolytic oxidation of an Al-Cu-Li alloy in alkaline aluminate electrolytes: A competition between growth and dissolution for the initial ultra-thin films

By: Cheng, Ying-liang; Mao, Mo-ke; Cao, Jin-hui; et al.

ELECTROCHIMICA ACTA Volume: 138 Pages: 417-429 Published: AUG 20 2014

3. Investigations on current transients in porous alumina films during re-anodizing using the electrochemical quartz crystal microbalance

By: Ispas, Adriana; Bund, Andreas; Vrublevsky, Igor

Conference: International Workshop on Electrochemistry of Electroactive Materials ( WEEM-2009) Location: Szczyrk, POLAND Date: JUL 14-19, 2009

JOURNAL OF SOLID STATE ELECTROCHEMISTRY Volume: 14 Issue: 11 Pages: 2121-2128 Published: NOV 2010

**25. *The galvanoluminescence spectra of barrier oxide films on aluminum formed in inorganic electrolytes***

1. Effects of 2-methyl-1, 3-propanediol in boric acid solution on the anodizing behavior and electrical properties of ZrO<sub>2</sub>-coated Al foil

By: Zhang, Kaiqiang; Park, Sang-Shik

SURFACE & COATINGS TECHNOLOGY Volume: 310 Pages: 143-147 Published: JAN 25 2017

2. Characterization of Porous Anodic Aluminum Oxide Films by Luminescence Methods - A Review

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4. Plasma electrolytic oxidation coatings in KOH electrolyte and its discharge characteristics

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JOURNAL OF ALLOYS AND COMPOUNDS Volume: 594 Pages: 27-31 Published: MAY 5 2014

5. Study of complex formation in Al(III) - Gluconic acid system and the influence of UV light on the dissolution and passive behavior of Al

By: Amin, Mohammed A.; Refat, Moamen S.

ARABIAN JOURNAL OF CHEMISTRY Volume: 6 Issue: 2 Pages: 165-172 Published: APR 2013



6. Evolution of active species and discharge sparks in Na<sub>2</sub>SiO<sub>3</sub> electrolyte during PEO process  
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Sponsor(s): Int Soc Electrochem  
JOURNAL OF SOLID STATE ELECTROCHEMISTRY Volume: 14 Issue: 11 Pages: 2121-2128 Published: NOV 2010
9. Pitting and pitting control of Al in gluconic acid solutions - Polarization, chronoamperometry and morphological studies  
By: Amin, Mohammed A.; El Rehim, Sayed S. Abd; El-Lithy, Abdallah S.  
CORROSION SCIENCE Volume: 52 Issue: 9 Pages: 3099-3108 Published: SEP 2010  
Full Text from Publisher
10. Voltage-controlled negative resistance and electroluminescent spectra of Al-Al<sub>2</sub>O<sub>3</sub>-Au diodes  
By: Hickmott, T. W.  
JOURNAL OF APPLIED PHYSICS Volume: 106 Issue: 10 Article Number: 103719  
Published: NOV 15 2009

***26. Light-emitting-diode-based light source for calibration of an intensified charge-coupled device detection system intended for galvanoluminescence measurements***

1. Real-time imaging, spectroscopy, and structural investigation of cathodic plasma electrolytic oxidation of molybdenum  
By: Stojadinovic, Stevan; Tadic, Nenad; Sisovic, Nikola M.; et al.  
JOURNAL OF APPLIED PHYSICS Volume: 117 Issue: 23 Article Number: 233304  
Published: JUN 21 2015
2. Investigation of plasma electrolytic oxidation on valve metals by means of molecular spectroscopy - a review  
By: Stojadinovic, Stevan; Vasilic, Rastko; Peric, Miljenko  
RSC ADVANCES Volume: 4 Issue: 49 Pages: 25759-25789 Published: 2014
3. Spectroscopic and real-time imaging investigation of tantalum plasma electrolytic oxidation (PEO)  
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***27. The influence of aluminum treatment and anodizing conditions on the galvanoluminescence properties of porous oxide films formed in sulfuric acid solution***

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CHEMICAL REVIEWS Volume: 114 Issue: 15 Pages: 7487-7556 Published: AUG 13 2014

3. Effects of a magnetic field on growth of porous alumina films on aluminum

By: Ispas, Adriana; Bund, Andreas; Vrublevsky, Igor

ELECTROCHIMICA ACTA Volume: 55 Issue: 13 Pages: 4180-4187 Published: MAY 1 2010

***28. Galvanoluminescence of porous oxide films formed by anodization of aluminum in chromic acid solution***

1. Characterization of Porous Anodic Aluminum Oxide Films by Luminescence Methods - A Review

By: Stojadinovic, Stevan; Vasilic, Rastko

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CHEMICAL REVIEWS Volume: 114 Issue: 15 Pages: 7487-7556 Published: AUG 13 2014

5. Potentiodynamic behavior of as-grown and annealed porous anodic alumina films: Current overshoots and oscillations in transients

By: Vrublevsky, I.; Jagminas, A.; Schreckenbach, J.; et al.

SOLID STATE SCIENCES Volume: 10 Issue: 11 Pages: 1605-1611 Published: NOV 2008

***29. The influence of anodizing conditions on the galvanoluminescence spectra of porous oxide films on aluminum formed in phosphoric acid solution***

1. Porous Aluminum Oxide Formed by Anodizing in Various Electrolyte Species

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***30. Galvanoluminescence of oxide films formed by anodization of aluminum in phosphoric acid***

1. Light emission from electrodes under dielectrophoresis conditions

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SOLID STATE SCIENCES Volume: 10 Issue: 11 Pages: 1605-1611 Published: NOV 2008

***31. Galvanoluminescence spectra of porous oxide layers formed by aluminum anodization in oxalic acid***

1. Mechanism of aluminium and oxygen ions transport in the barrier layer of porous anodic alumina films

Patermarakis, G., Diakonikolaou, J.

Journal of Solid State Electrochemistry 16 (9) , pp. 2921-2939, 2012

**2.** Transformation of porous structure of anodic alumina films formed during galvanostatic anodising of aluminium

Patermarakis, G., Moussoutzanis, K.

Journal of Electroanalytical Chemistry 659 (2) , pp. 176-190, 2011

**3.** Investigations on current transients in porous alumina films during re-anodizing using the electrochemical quartz crystal microbalance

Ispas, A., Bund, A., Vrublevsky, I.

Journal of Solid State Electrochemistry 14 (11) , pp. 2121-2128, 2010

**4.** Effects of a magnetic field on growth of porous alumina films on aluminum

Ispas, A., Bund, A., Vrublevsky, I.

Electrochimica Acta 55 (13) , pp. 4180-4187, 2010

**5.** Oxide density distribution across the barrier layer during the steady state growth of porous anodic alumina films: Chronopotentiometry, kinetics of mass and thickness evolution and a high field ionic migration model

Patermarakis, G., Karayianni, H., Masavetas, K., Chandrinos, J.

Journal of Solid State Electrochemistry 13 (12) , pp. 1831-1847, 2009

**6.** The origin of nucleation and development of porous nanostructure of anodic alumina films

Patermarakis, G.

Journal of Electroanalytical Chemistry 635 (1) , pp. 39-50, 2009

**7.** Three-dimensionally ordered macroporous gold structure as an efficient matrix for solid-state electrochemiluminescence of Ru(bpy)<sub>3</sub><sup>2+</sup>/TPA system with high sensitivity

Gao, W., Xia, X.-H., Xu, J.-J., Chen, H.-Y.

Journal of Physical Chemistry C 111 (33) , pp. 12213-12219, 2007

**8.** Electrogenerated chemiluminescence in polyelectrolyte multilayers: Efficiency and mechanism

Bucur, C.B., Schlenoff, J.B.

Analytical Chemistry 78 (7) , pp. 2360-2365, 2006



## ЗАКЉУЧАК

На конкурс за редовног професора са пуним радним временом за ужу научну област Примењена физика расписаном 19.07.2017. године у листу „Послови” по одлуци IX седнице Изборног наставно-научног већа Физичког факултета Универзитета у Београду од 28.07.2017. године, јавио се један кандидат, др Бећко Касалица. Кандидат на основу предходно изложених података из биографије и наставно-научног рада, испуњава услове за избор у звање редовног професора, предвиђене Законом о високом образовању Републике Србије, Правилником о условима за стицање звања наставника на Универзитету у Београду и Статутом Физичког факултета.

Научни рад кандидата је резултирао са 31-ним радом у водећим међународним часописима (са импакт фактором  $> 1$ )<sup>1</sup>. Укупан импакт фактор тих радова износи 79.084, а средњим импакт фактором од 2.55. Поменти радови су цитирани преко 283 пута без самоцитата и цитата коаутора, а са цитатима коаутора преко 392 пута<sup>2</sup>. Након избора у звање ванредног професора кандидат је објавио 5 радова у водећим међународним часописима (са импакт фактором  $> 1$ ). Кандидат је коаутор једног уџбеника и једног поглавља у водећој међународној монографији. Учесник је домаћих и међународних конференција са усменим и постер презентацијама, као и предавања по позиву.

Наставна активност кандидата показује способност да развија и унапређује студијске курсеве. Резултат ове активности је увођење нових вежби и нових предмета. Педагошки рад кандидата је одлично оцењен од стране студената 4.76 (средња оцена у предходне три године).

На основу изложеног, Комисија

## ПРЕДЛАЖЕ

**Изборном већу Физичког факултета да др Бећка Касалицу изабере у звање и на радно место РЕДОВНОГ ПРОФЕСОРА за ужу научну област Примењена физика на Физичком факултету Универзитета у Београду.**

Комисија

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Академик Миљенко Перић

Проф. др емеритус Факултета за физичку  
хемију Универзитета у Београду

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Проф. др Стеван Стојадиновић

Редовни професор Физичког факултета  
Универзитета у Београду

Београд, 11.09.2017.