

**LIST OF MENTHORS FOR YOUNG RESEARCHERS FOR 2012**

No.	Fields of science	Code of researcher	Name and surname	Research area	e-mail
<b>Natural sciences and mathematics</b>					
1	Physics	3939	prof. dr. Janez Dolinšek	Solid state physics (experimental), physical properties of novel "smart" materials	<a href="mailto:janez.dolinsek@ijs.si">janez.dolinsek@ijs.si</a>
2	Physics	4540	prof. dr. Dragan D. Mihailović	Investigations of coherent dynamics of many-body systems undergoing symmetry breaking transitions	<a href="mailto:dragan.mihailovic@ijs.si">dragan.mihailovic@ijs.si</a>
3	Physics	9089	prof. dr. Igor Muševič	Young researcher will conduct experiments in liquid crystals. He/she will study the fluctuation and structural forces between colloidal particles in liquid crystals and their application in photonics	<a href="mailto:igor.musevic@ijs.si">igor.musevic@ijs.si</a>
4	Physics	8589	prof. dr. Rudolf Podgornik	Statistical mechanics of ionic liquids and Coulomb fluids in general	<a href="mailto:rudolf.podgornik@ijs.si">rudolf.podgornik@ijs.si</a>
5	Physics	14827	doc. dr. Matej Lipoglavšek	Nuclear physics, electron screening in nuclear reactions	<a href="mailto:matej.lipoglavsek@ijs.si">matej.lipoglavsek@ijs.si</a>
6	Physics	10124	prof. dr. Zdravko Kutnjak	Thermal and dielectric properties of disordered and partially ordered organic and inorganic materials	<a href="mailto:zdravko.kutnjak@ijs.si">zdravko.kutnjak@ijs.si</a>
7	Physics	19274	prof. dr. Viktor Kabanov	Experimental and theoretical determination of Coulomb pseudo-potential and electron-phonon coupling constants in different materials	<a href="mailto:viktor.kabanov@ijs.si">viktor.kabanov@ijs.si</a>
8	Physics	4943	prof. dr. Janez Bonča		<a href="mailto:janez.bonca@ijs.si">janez.bonca@ijs.si</a>
9	Physics	7527	prof. dr.Boštjan Zalar	Nuclear magnetic resonance of polymer dispersed liquid crystal elastomers	<a href="mailto:bostjan.zalar@ijs.si">bostjan.zalar@ijs.si</a>
10	Physics	23567	dr. Rok Žitko	Numerical methods in the physics of strongly correlated particles in solid state and optical lattices	<a href="mailto:rok.zitko@ijs.si">rok.zitko@ijs.si</a>
11	Physics	28720	doc. dr. Christoph Gadermaier	Optics and electronics using inorganic low-dimensional materials	<a href="mailto:christoph.gadermaier@ijs.si">christoph.gadermaier@ijs.si</a>
12	Experimental physics of elementary particles	15642	dr. Gregor Kramberger	Experimental particle physics/Analysis of data collected with ATLAS detector	<a href="mailto:gregor.kramberger@ijs.si">gregor.kramberger@ijs.si</a>
13	Chemistry	5027	prof. dr. Milena Horvat	Traceability of mercury measurements in the context of global observing systems	<a href="mailto:milena.horvat@ijs.si">milena.horvat@ijs.si</a>
14	Chemistry	1290	prof. dr. Ingrid Milošev	PhD thesis will be devoted to the investigation of impact of different biomolecules on the behaviour of metallic materials in simulated physiological solution	<a href="mailto:ingrid.milosev@ijs.si">ingrid.milosev@ijs.si</a>

15	Chemistry	6058	prof. dr. Stojan Stavber	Green organic chemistry, aerobic transformation of organic compounds	<a href="mailto:stojan.stavber@ijs.si">stojan.stavber@ijs.si</a>
16	Chemistry	18274	dr. Polona Umek	Synthesis and characterization of new functional nanomaterials based on polyoxometalates and TiO <sub>2</sub> nanostructures	<a href="mailto:polona.umek@ijs.si">polona.umek@ijs.si</a>
17	Chemistry	8027	dr. Antonija Lesar	Research work of candidate will be oriented to the theoretical study of the mechanism for the radical reactions of the atmospheric relevance	<a href="mailto:antonija.lesar@ijs.si">antonija.lesar@ijs.si</a>
18	Chemistry	14680	doc. dr. Jernej Iskra	Study of new synthetic paths towards organic peroxides and their biological activity	<a href="mailto:jernejsiskra@ijs.si">jernejsiskra@ijs.si</a>
19	Biochemistry and molecular biology	7561	prof. ddr. Boris Turk	The field of research is biochemistry and molecular biology with an emphasis on lysosomal proteases and their physiological role	<a href="mailto:boris.turk@ijs.si">boris.turk@ijs.si</a>
20	Biochemistry and molecular biology	1085	prof. dr. Vito Turk	Protein degradation processes and biochemical characterization of proteins/enzymes participating in these processes	<a href="mailto:vito.turk@ijs.si">vito.turk@ijs.si</a>
21	Control and care environment	18359	prof. dr. Janez Ščančar	Development and use of analytical methods of chemical speciation for interdisciplinary environmental studies	<a href="mailto:janez.scancar@ijs.si">janez.scancar@ijs.si</a>

#### Engineering sciences and technologies

22	Energy engineering	22289	doc. dr. Uroš Cvelbar	Research of atmospheric pressure plasmas and synthesis of nanomaterial for energy conversion in photovoltaic and photochemical applications	<a href="mailto:uros.cvelbar@ijs.si">uros.cvelbar@ijs.si</a>
23	Materials science and technology	8012	prof. dr. Danilo Suvorov	Contemporary oxide ceramics with improved electrical properties	<a href="mailto:daniilo.suvorov@ijs.si">daniilo.suvorov@ijs.si</a>
24	Materials science and technology	3477	prof. dr. Tomaž Kosmač	Synthesis and properties of electroconductive engineering and bio-ceramics	<a href="mailto:tomaz.kosmac@ijs.si">tomaz.kosmac@ijs.si</a>
25	Materials science and technology	10372	prof. dr. Darko Makovec	Synthesis of composites with controlled phase distribution from colloidal suspensions of nanoparticles for (magneto)optic applications	<a href="mailto:darko.makovec@ijs.si">darko.makovec@ijs.si</a>
26	Materials science and technology	2556	doc. dr. Goran Dražič	Preparation of strongly bound titania layers on metal substrates via hydrothermal synthesis and characterisation of the layers using electron microscopies and microanalysis	<a href="mailto:goran.drazic@ijs.si">goran.drazic@ijs.si</a>
27	Materials science and technology	6627	doc. dr. Slavko Bernik	Materials, electroceramics/ZnO-based ceramics, varistor ceramics and oxide thermoelectric materials	<a href="mailto:slavko.bernik@ijs.si">slavko.bernik@ijs.si</a>
28	Materials science and technology	19169	doc. dr. Boštjan Jančar	Synthesis of functional nanostructures	<a href="mailto:bostjan.jancar@ijs.si">bostjan.jancar@ijs.si</a>
29	Materials science and technology	17100	doc. dr. Kristoffer Krnel	Development of an inorganically bonded fibre-reinforced composite that will be suitable for the production of a new generation of materials preferably using industrial by products such as fly-ash or furnace slag	<a href="mailto:kristoffel.krnel@ijs.si">kristoffel.krnel@ijs.si</a>
30	Materials science and technology	19038	doc. dr. Andreja Benčan Golob	Domain engineering of complex perovskites for highly efficient electromechanical components	<a href="mailto:andreja.bencan@ijs.si">andreja.bencan@ijs.si</a>

31	Materials science and technology	18271	doc. dr. Miha Čekada	Development of multicomponent and multilayer coatings based on CrAIN	<a href="mailto:miha.cekada@ijs.si">miha.cekada@ijs.si</a>
32	Systems and cybernetics	4643	dr. Janko Petrovčič	Control of Fuel-cell based auxiliary power units and diagnosis of stack failures based on impedance spectrometry and other electronic diagnostic approaches	<a href="mailto:janko.petrovcic@ijs.si">janko.petrovcic@ijs.si</a>
33	Computer science and informatics	11130	prof. dr. Sašo Džeroski	Design and use of machine learning methods from complex structured data	<a href="mailto:saso.dzeroski@ijs.si">saso.dzeroski@ijs.si</a>
34	Computer science and informatics	8949	prof. dr. Nada Lavrač	The planned research area is Knowledge Technologies	<a href="mailto:nada.lavrac@ijs.si">nada.lavrac@ijs.si</a>
35	Computer science and informatics	12570	prof. dr. Dunja Mladenić	Development of Machine Learning and Multimedia Mining methods focused on semantic enrichment of stream data using background knowledge	<a href="mailto:dunja.mladenic@ijs.si">dunja.mladenic@ijs.si</a>
36	Telecommunications	1339	prof. dr. Borka Džonova Jerman B.	Computer Communication and Networks,Future internet technologies and applications	<a href="mailto:borka.jerman-blazic@ijs.si">borka.jerman-blazic@ijs.si</a>
37	Electronic components and technologies	2627	prof. dr. Marija Kosec	Materials for electronics	<a href="mailto:marija.kosec@ijs.si">marija.kosec@ijs.si</a>
38	Electronic components and technologies	10429	prof. dr. Miran Mozetič		<a href="mailto:miran.mozetic@ijs.si">miran.mozetic@ijs.si</a>
39	Electronic components and technologies	4587	prof. dr. Barbara Malič	Design of chemical solution deposition of ceramic thin films for applications in microelectromechanical devices	<a href="mailto:barbara.malic@ijs.si">barbara.malic@ijs.si</a>

#### Medical sciences

40	Neurobiology	15813	dr. Boris Rogelj	Dysregulation of TDP-43 expression in amyotrophic lateral sclerosis and frontotemporal lobar degeneration	<a href="mailto:boris.rogelj@ijs.si">boris.rogelj@ijs.si</a>
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#### Interdisciplinary studies

41	Interdisciplinary studies	12314	doc. dr. Primož Pelicon		<a href="mailto:primoz.pelicon@ijs.si">primoz.pelicon@ijs.si</a>
42	Interdisciplinary studies	20048	doc. dr. Alenka Vesel	Functionalization of biomedical materials for improving properties of cardiovascular implants with sulphur dioxide plasma	<a href="mailto:alenka.vesel@ijs.si">alenka.vesel@ijs.si</a>