Dr. A. B. Bourlinos

CV info 24/9/2019

***Name*:** Athanasios (Thanos) B. Bourlinos

***Title*:** Dr. (PhD in Chemistry)

***Date of birth*:** 4/10/1973

***Place of birth*:** Athens, Greece

***Citizenship*:** Greek

Physics Department

University of Ioannina

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***Education*:** PhD (1999-2002), MSc (1997-1999) and BSc (1991-1995) in Chemistry from University of Athens (Greece) *(1995-1997: mandatory military service of 18 months)*

- PhD thesis, 2002: Surface modification of MCM-41 porous silica with metal ions and magnetic iron oxide nanoparticles, Supervisor: Dr. D. Petridis, Institute of Materials Science, NCSR Demokritos, Athens, Greece
- MSc thesis, 1999: Synthesis and characterization of iron-substituted MCM-41 porous silica through cation exchange of the template, Supervisor: Dr. D. Petridis, Institute of Materials Science, NCSR Demokritos, Athens, Greece
- Undergraduate thesis, 1995: Polymerization of diphenylacetylene in the presence of the binuclear complex $Re_2Cl_8^{2-}$ having a Re-Re quadruple bond, Supervisor: Prof. K. Mertis, Chemistry Department, University of Athens, Athens, Greece

***Honors*:**

- Rewarded funds from the State Scholarships Foundation for 3rd rank achievement at university entrance exam from the Chemistry Department, Athens University, Greece (1991)
- Rewarded funds from the State Scholarships Foundation for 1st rank achievement in the Master's postgraduate program from the Chemistry Department, Athens University, Greece (1999)
- A three-year PhD scholarship from the Institute of Materials Science, NCSR Demokritos (Athens, Greece) (1999-2002)

- Most cited Greek scientists, "Tractatus for the sixth fame" by John Ioannidis (Stanford), pp. 62-75, Kedros publisher (2016)
- Top 5 % in "Ranking of researchers and scientists in Greece in 2017 according to Google Scholar database", by G.P. Kouropoulos, Athens (July 2017)

***Professional experience*:**

- 2019- to date: Associate Professor at the Physics Department, University of Ioannina, Ioannina (Greece)
- 2015-2019: Assistant Professor (tenure) at the Physics Department, University of Ioannina, Ioannina (Greece)
- 2012-2015: Assistant Professor (3-years appointment) at the Physics Department, University of Ioannina, Ioannina (Greece)
- 2011-2012: Research associate at the Physics Department, University of Ioannina, Ioannina (Greece)
- 2005-2011: Research associate at the Institute of Materials Science, NCSR Demokritos, Athens (Greece)
- 2002-2004: Post-doctoral fellow at Materials Science and Engineering, Cornell University, Ithaca NY (USA)

***Subject area*:** Experimental solid-state physics: electronic and magnetic properties of nanostructured solids

***Research interests*:** Synthesis or surface modification, physical characterization and magnetic/optical properties of carbon nanostructured materials and hybrids thereof. Carbon materials of interest include carbon dots, nanodiamonds, graphene derivatives and amorphous carbon. The studied properties pertain to magnetism, photoluminescence, non-linear optics, catalysis, environment and biological applications

***Career highlights*:**

- Surface-functionalized nanoparticles with liquid-like behavior (*Advanced Materials, Vol. 17, 2005, pages 234-237*): This work has been highlighted in Nature (by *M. Peplow, Research highlights, Nature, vol. 432, 2004, page 688*) and Angew. Chem. (by *B. Smarsly, H. Kaper, Liquid inorganic-organic nanocomposites: Novel electrolytes and ferrofluids, Angewandte Chemie-International Edition, Vol. 44, 2005, pages 3809-3811*). In the following years, the research in functionalized nanoparticles with liquid-like behavior by the Giannelis and Archer groups afforded a grant of $ 25.000.000 for raising the KAUST-CU center at Cornell University for Energy and Sustainability (Co-directors: E. P. Giannelis & L. A. Archer) (see report by *R. Emro, Creating nanoscale solutions to global problems, Cornell Engineering Magazine, spring 2009, Cornell University*)
- Molecular synthesis of photoluminescent carbon dots (*Small, Vol. 4, 2008, pages 455-458; Chemistry of Materials, Vol. 20, 2008, pages 4539-4541*): These works have been highlighted in a review paper from Angew. Chem. (by *S. N. Baker, G. A. Baker, Luminescent carbon nanodots: Emergent*

nanolights, Angewandte Chemie-International Edition, Vol. 49, 2010, pages 6726-6744), placing our works amongst the most important contributions in the C-dots timeline

- Production and functionalization of graphene derivatives (*Langmuir, Vol. 19, 2003, pages 6050-6055; Small, Vol. 5, 2009, pages 1841-1845; Solid State Communications, Vol. 149, 2009, pages 2172-2176; Small, 2010, vol. 6, pages 2885-2891; Chemical Reviews, Vol. 112, 2012, pages 6156-6214; Chemical Reviews, Vol. 116, 2016, pages 5464-5519*). Our article in *Solid State Communications* has been included in the virtual special issue 2018 *"10 Years of Graphene Research in Solid State Communications"*. Particular emphasis is also given on the chemistry and properties of fluorographene

***Teaching experience*:** General Chemistry (4 hours/week, fall semester), Physical Chemistry I (4 hours/week, fall semester), Physical Chemistry II (4 hours/week, spring semester), Physics Mechanics Lab (4 hours/week, spring semester). Seminar courses (topics in nanoparticles and carbon materials) in the post-graduate study program of Materials Science and Engineering Department, University of Ioannina

***Scientific texts*:**

- A. B. Bourlinos, "Materials synthesis: a practical guide for physicists", Ioannina 2015 (*http://phys-exp.physics.uoi.gr/wp-content/uploads/2015/09/MatLab.pdf*)
- V. Mouselimis, A. B. Bourlinos, "Physical chemistry of carbon", Ioannina 2018 (*http://phys-exp.physics.uoi.gr/wp-content/uploads/2018/06/ΦΥΣΙΚΟΧΗΜΕΙΑ-ΤΟΥ-ΑΝΘΡΑΚΑ.pdf*)

***Recommendation Letters*:** Several recommendation letters for post-graduate studies, post-doc positions and scholarships (University of Ioannina, Aristotle University of Thessaloniki, Cornell, Columbia, University of Houston, Oxford, Imperial College, Manchester University, Helmholtz Zentrum München, RCPTM-Palacky University, Onasis Foundation, Max Planck Institute, McMaster University, TEI Kavalas, Hofstra University), as well as, faculty position in USA

***Supervisor of undergraduate theses*:**

- G. Trivizas, Preparation of functional carbon materials using microwave chemistry, Ioannina 2013
- A. Voulgarides, Preparation and study of hybrid materials of graphene and nanodiamonds with elemental nanoparticles, Ioannina 2014
- A. Gosiou, Materials synthesis: a practical guide for physicists, Ioannina 2015 (the thesis aims to introduce chemistry lab courses for physicists in our department)
- K. Ferendinou & N. Damianides, Materials synthesis I & II, Ioannina 2016

***Supervisor of Master's thesis*:**

- G. Trivizas, Nonlinear optical properties of carbon nanoparticles, Ioannina 2015
- V. Mouselimis, Synthesis, characterization and electrical properties of fullerol-graphene derivatives, Ioannina 2018

- I. Bestas, Energy conversion experiments in secondary education, Ioannina due to 2019

***Supervisor of PhD thesis*:**

- V. Mouselimis, Fluorographene derivatives and study of their optical properties, Ioannina due to 2020

***Supervisor of post-doc*:**

- Dr. G. Potsi, Derivatives of fluorographene and properties, RCPTM Olomouc, Czech Republic, 2017-2019

***Dissertation committees*:** 20 Masters and 15 PhDs

***Partner in funded research projects*:**

- Self-assembled nanoparticles and nanopatterned arrays for high density magnetorecording (HIDEMAR), Synthesis and magnetic properties of CoPt nanoparticles (2002, Greece)
- Roam & Haas (intercalated clay polymer composites as novel paint additives) and Eastman Kodak (laser annealing of ITO nanofilms and their electronic properties) (2002-2004, Cornell USA)
- Proton conductivity of clay-Nafion composite membranes for fuel cells (2002-2004, Cornell USA)
- NESSHY (E-1268), STORHY (E-1142) & NanoHy (E-1484), Hybrid carbon materials for hydrogen storage (2005-2011, Greece)
- HYCONES (STRP 032970), Separation and surface modification of carbon nanocones (2005-2011, Greece)
- THALES research grant # 377278 (600.000 Euro from the Greek Ministry of Education), Aristotle University of Thessaloniki, Chemistry Department: Advanced nanocomposite materials-polymer reinforcement by silica and carbon nanostructures. Principal investigator: Prof. K. Triantafyllides
- THALES research grant # 80790 (600.000 Euro from the Greek Ministry of Education), University of Ioannina, Physics Department: Hybrid micro- and mesoporous materials for environmental applications. Principal investigator: Prof. Y. Deligiannakis
- Research associate in Regional Centre of Advanced Technologies and Materials (RCPTM), Department of Physical Chemistry, Palacky University, Olomouc (Czech Republic) (*http://www.rcptm.com/research-divisions/carbon-nanostructures-and-biomacromolecules/*)

***Scientific Collaborations*:**

- Prof. R. Zboril, Regional Centre of Advanced Technologies and Materials (RCPTM), Department of Physical Chemistry, Palacky University, Olomouc (Czech Republic)
- Prof. M. Otyepka, Regional Centre of Advanced Technologies and Materials (RCPTM), Department of Physical Chemistry, Palacky University, Olomouc (Czech Republic)
- Prof. E. P. Giannelis, Materials Science and Engineering, Cornell University, Ithaca NY (USA)
- Prof. S. Couris, Department of Physics, University of Patras, Rio-Patra (Greece)

- Prof. A. Bakandritsos, Materials Science and Engineering, University of Patras, Rio-Patra (Greece)
- Prof. V. Georgakilas, Materials Science and Engineering, University of Patras, Rio-Patra (Greece)
- Prof. M. A. Karakassides, Materials Science and Engineering, University of Ioannina, Ioannina (Greece)
- Prof. D. Gournis, Materials Science and Engineering, University of Ioannina, Ioannina (Greece)
- Prof. Y. Deligiannakis, Physics Department, University of Ioannina, Ioannina (Greece)
- Prof. T. Bakas, Physics Department, University of Ioannina, Ioannina (Greece)
- Prof. A. Douvalis, Physics Department, University of Ioannina, Ioannina (Greece)
- Dr. T. Steriotis, Institute of Physical Chemistry, NCSR Demokritos, Athens (Greece)

***Visiting scientists*:**

- Mrs. K. Hola (15/10/2012-16/11/2012, 1 month) from RCPTM, Olomouc (Czech Republic)
- Dr. J. Perman (15/9/2014-15/11/2014, 2 months) from RCPTM, Olomouc (Czech Republic)
- Dr. M. Gawande (25/5/2015-21/6/2015, 1 month) from RCPTM, Olomouc (Czech Republic)
- Dr. P. Dallas (9/7/2016-12/7/2016, 4 days) from Department of Materials, Oxford University (UK)

***Oral presentations*:**

- "Carbon materials", *invited seminar lecture* for Materials Science & Engineering, University of Ioannina (2009)
- "Functional carbonaceous materials: synthesis, characterization and properties", Panhellenic conference on solid-state physics and materials science, Ioannina 26/9-29/9 (2010) Greece
- "Functional carbonaceous materials: synthesis, characterization and properties", NANOCON 2010, Olomouc 12/10-14/10 (2010) Czech Republic *(Invited speaker)*
- "Carbon allotropes", NANOCON 2011, Brno 21/9-23/9 (2011) Czech Republic
- "Photoluminescent carbon dots", NANOCON 2013, Brno 16/10-18/10 (2013) Czech Republic
- "Carbon materials for environmental applications", NANOCON 2014, Brno 5/11-7/11 (2014) Czech Republic
- "Carbon allotropes", Seminar courses-Section IV, Physics Department, University of Ioannina, Ioannina 4/3 (2016) Greece
- "Carbon sorbents", 7th Panhellenic Symposium on Porous Materials, University of Ioannina, Ioannina 2/6-4/6 (2016) Greece *(Invited speaker & Chairs)*
- "Physics in Chemistry", Department lecture on welcome reception of 1st year undergraduates, Physics Department, University of Ioannina, Ioannina 1/10 (2018) Greece
- "Carbon applications". Seminar courses of the Physics Department, University of Ioannina, Ioannina 15/3 (2019) Greece

***Posters*:**

- "Synthesis and characterization of copper-containing MCM-41 porous silica", ESF conference: Reactivity in Organized Microstructures, Wiesbaden-Naurod, Germany, July 18-23 (1998)
- "Synthesis and characterization of iron-containing MCM-41 porous silica", Summer School on Advanced Materials for Industrial Applications, Kavala, Greece, June 20-27 (1999)
- "Synthesis, surface modification and magnetic properties of maghemite nanoparticles", A TMR Euroconference-School, From Nanoscopic to Mesoscopic Magnetic Systems-I, Spetses, Greece, September 27-October 1 (2000)
- Investigating the Properties and Bonding of Magnetic Nanoparticles in Carbon-Based Hybrid Nanostructures with Nuclear Resonant Scattering Experiments, A.P. Douvalis, D. Gournis, A.B. Bourlinos, M. Karakassides, T. Bakas, 498th Wilhelm and Else Heraeus Seminar on Progress in Nuclear Resonance Scattering: from Methods to Materials, Bad-honnef, Germany, February (2012)
- Cytotoxicity evaluation of carbon dots with different surface charge, Havrdova M., Hola K., Skopalik J., Tomankova K., Petr M., Polakova K., Kozak O., Cepe K., Bourlinos A.B., Tucek J., Zboril R., NANOCON 2014, Brno 5/11-7/11 (2014) Czech Republic
- Fluidized carbon nanotubes through novel modification pathways, A. B. Bourlinos, V. Georgakilas, A. Bakandritsos, M. A. Karakassides, D. Gournis, A. Kouloumpis, R. Zboril and E. P. Giannelis, XXXII Panhellenic Conference on Solid State Physics & Materials Science, 18 to 21 of September 2016, Ioannina (Greece)

***Reviewer in international journals*:**

- Advanced Functional Materials, Advanced Materials, Small (Wiley)
- Journal of Solid State Chemistry, Carbon, Chemical Physics Letters, Materials Chemistry and Physics, Journal of Alloys and Compounds, Desalination, Spectrochimica Acta A, Analytica Chimica Acta, Journal of Colloid and Interface Science, Applied Surface Science, Materials Letters, Materials Science and Engineering B, Applied Materials Today (Elsevier)
- Langmuir, Chemistry of Materials, Journal of the American Chemical Society, ACS Nano, The Journal of Physical Chemistry, Industrial & Engineering Chemistry Research, Accounts of Chemical Research, Macromolecules (ACS)
- Nanotechnology (IOP)
- Journal of Materials Science, Central European Journal of Chemistry, Materials Research Innovations (Springer)
- Nanoscale, Chemical Communications, Journal of Materials Chemistry, Journal of Materials Chemistry A (RSC)
- IEEE Transactions on Electronics Packaging Manufacturing (IEEE)
- Journal of Drug Delivery (Hindawi Publishing Corporation)

- Australian Journal of Chemistry (CSIRO Publishing)
- Scientific Reports, Nature Communications (Nature Publishing Groups)

***Administrative tasks (Physics Department)*:**

- Experiments demonstration room: demonstration of science experiments to school visitors (exothermic reactions, microwaves, polymers, advanced materials)
- Committee of Buildings and Safety (Chairman)
- Committee of building's hygiene (Chairman) (3 years)
- Committee on receipt and best value tendering of the Research Committee, University of Ioannina
- Regular member of Department & Section staff meetings
- Evaluation Committee of lab network facilities 2010-2017, University of Ioannina 2017
- Advisor of students' spring/summer practicum (3)
- Electoral body for faculty academic positions (3)
- Steering committee of postgraduate studies in new technologies and the research in physics education (2017-2019)

***Memberships*:** Association of Greek Chemists (EEX), American Chemical Society (ACS)

Patents (3)

1. "Functionalized nanostructures with liquid-like behavior", Giannelis, E. P.; **Bourlinos, A. B.**, *US Patent Office 20070254994* (2007).
2. "Group III nitride coatings and methods", Wu, H.; Spencer, M. G.; Giannelis, E. P.; **Bourlinos, A. B.**, *US Patent Office 20080050857* (2010).
3. "Carbon materials for hydrogen storage", **Bourlinos, A. B.**; Steriotis, T. A.; Stubos, A.; Miller, M. A., *US Patent Application US20100125038A1* (2010).

Publications (Peer-Reviewed Journals) (121)

1. "Large enhancement of the nonlinear optical response of fluorographene by chemical functionalization: the case of diethylamino-fluorographene", Papadakis, I.; Kyrginas, D.; Stathis, A.; Couris, S.; Potsi, G.; **Bourlinos, A. B.**; Tomanec, O.; Otyepka, M.; Zboril, R., *The Journal of Physical Chemistry C*, 2019, vol. , pp. - (*accepted*).

2. "Intrinsic photoluminescence of amine-functionalized graphene derivatives for bioimaging applications", Potsi, G.; **Bourlinos, A. B.**; Mouselimis, V.; Polakova, K.; Chalmpes, N.; Gournis, D.; Kalytchuk, S.; Tomanec, O.; Blonski, P.; Medve, M.; Lazar, P.; Otyepka, M.; Zboril, R., *Applied Materials Today*, 2019, vol. 17, pp. 112-122.

3. "Direct production of carbon nanosheets by self-ignition of pyrophoric lithium dialkylamides in air", Baikousi, M.; Chalmpes, N.; Spyrou, K.; **Bourlinos, A. B.**; Avgeropoulos, A.; Gournis, D.; Karakassides, M. A., *Materials Letters*, 2019, vol. 254, pp. 58-61.

4. "Thiophenol-modified fluorographene derivatives for nonlinear optical applications", Stathis, A.; Papadakis, I.; Karampitsos, N.; Couris, S.; Potsi, G.; **Bourlinos, A. B.**; Otyepka, M.; Zboril, R., *ChemPlusChem*, 2019, vol. 84, pp. 1288-1298.

5. "Dramatic enhancement of the nonlinear optical response of hydrogenated fluorographene: the effect of midgap states", Papadakis, I.; Bouza, Z.; Couris, S.; Mouselimis, V.; **Bourlinos, A. B.**, *Journal of Physical Chemistry C*, 2018, vol. 122, pp. 25573-25579.

6. "Molecular Mn-catalysts grafted on graphitic carbon nitride (gCN): the behavior of gCN as support matrix in oxidation reactions", Simaioforidou, A.; Georgiou, Y.; **Bourlinos, A. B.**; Louloudi, M., *Polyhedron*, 2018, vol. 153, pp. 41-50.

7. "Highly efficient arsenite As(III) adsorption by a MIL-100(Fe) metal-organic framework: structural and mechanistic insights", Georgiou, Y.; Perman, J.; **Bourlinos, A. B.**; Deligiannakis; Y., *Journal of Physical Chemistry C*, 2018, vol. 122, pp. 4859-4869.

8. "Hydrogenated fluorographene: a 2D counterpart of graphane with enhanced nonlinear optical properties", Papadakis, I.; Bouza, Z.; Couris, S.; **Bourlinos, A. B.**; Mouselimis, V.; Kouloumpis, A.; Gournis, D.; Bakandritsos, A.; Ugolotti, J.; Zboril, R., *Journal of Physical Chemistry C*, 2017, vol. 121, pp. 22567-22575.

9. "Graphene/carbon-dot hybrid thin films prepared by a modified Langmuir-Schaefer method", Kouloumpis, A.; Thomou, E.; Chalmpes, N.; Dimos, K.; Spyrou, K.; **Bourlinos, A. B.**; Koutselas, I.; Gournis, D.; Rudolf, P., *ACS Omega*, 2017, vol. 2, pp. 2090-2099.

10. "Fullerol-graphene nanobuds: novel water dispersible and highly conductive nanocarbon for electrochemical sensing", **Bourlinos, A. B.**; Georgakilas, V.; Mouselimis, V.; Kouloumpis, A.; Mouzourakis, E.; Koutsioukis, A.; Antoniou, M-K.; Gournis, D.; Karakassides, M. A.; Deligiannakis, Y.; Urbanova, V.; Cepe, K.; Bakandritsos, A.; Zboril, R., *Applied Materials Today*, 2017, vol. 9, pp. 71-76.

11. "Fe(III)-functionalized carbon dots-Highly efficient photoluminescence redox catalyst for hydrogenations of olefins and decomposition of hydrogen peroxide", **Bourlinos, A. B.**; Rathi, A. K.;

Gawande, M. B.; Hola, K.; Goswami, A.; Kalytchuk, S.; Karakassides, M. A.; Kouloumpis, A.; Gournis, D.; Deligiannakis, Y.; Giannelis, E. P.; Zboril, R., *Applied Materials Today*, 2017, vol. 7, pp. 179-184.

12. "Cyanographene and graphene acid-emerging derivatives enabling high-yield and selective functionalization of graphene", Bakandritsos, A.; Pykal, M.; Blonski, P.; Jakubec, P.; Chronopoulos, D. D.; Poláková, K.; Georgakilas, V.; Čépe, K.; Tomanec, O.; Ranc, V.; **Bourlinos, A. B.**; Zbořil, R.; Otyepka, M., *ACS Nano*, 2017, vol. 11, pp. 2982-2991.

13. "Room temperature organic magnets derived from sp^3 functionalized graphene", Tucek, J.;Hola, K.; **Bourlinos, A. B;** Blonski, P.; Bakandritsos, A.; Ugolotti, J.; Dubecky,M.; Karlicky, F.; Ranc, V.;Cepe, K.; Otyepka, M.; Zboril, R.,*Nature Communications*, 2017, vol. 8, 14525 (12 pp).

14. "Graphene nanobuds: synthesis and selective organic derivatisation", Georgakilas, V.; **Bourlinos, A. B.**; Ntararas, E.; Imbraliou, A.; Gournis, D.; Dimos, K.; Kouloumpis, A.; Zboril, R., *Carbon*, 2016, vol. 110, pp. 51-55.

15. "Development of novel FePt/nanodiamond hybrid nanostructures: $L1_0$ phase size-growth suppression and magnetic properties", Douvalis, A. P.; **Bourlinos, A. B.**; Tucek, J.; Cepe, K.; Bakas, T.; Zboril, R., *Journal of Nanoparticle Research*, 2016, vol. 18, 115 (19 pp).

16. "Surface decoration of amine-rich carbon nitride with iron nanoparticles for arsenite (AsIII) uptake: the evolution of the Fe-phases under ambient conditions", Georgiou, Y.; Mouzourakis, E., **Bourlinos, A.B.**; Zboril, R.; Karakassides, M.A.; Douvalis, A.P.; Bakas, Th.; Deligiannakis, Y., *Journal of Hazardous Materials*, 2016, vol. 312, pp. 243-253.

17. "Toxicity of carbon dots-effect of surface functionalization on the cell viability, reactive oxygen species generation and cell cycle", Havrdova, M.; Hola, K.; Skopalik, J.; Tomankova, K.; Petr, M.; Cepe, K.; Polakova, K.; Tucek, J.; **Bourlinos, A. B.**; Zboril, R., *Carbon*, 2016, vol. 99, 238-248.

18. "Noncovalent functionalization of graphene and graphene oxide for energy materials, biosensing, catalytic, and biomedical applications", Georgakilas, V.; Tiwari, J. N.; Kemp, K. C.; Perman, J.; **Bourlinos, A. B.**; Kim, K.; Zboril, R., *Chemical Reviews*, 2016, vol. 116, pp. 5464-5519.

19. "Nonlinear optical response of gold-decorated nanodiamond hybrids", Potamianos, D.; Papadakis, I.; Kakkava, E.; **Bourlinos, A. B.**; Trivizas, G.; Zboril, R.; Couris, S., *Journal of Physical Chemistry C*, 2015, vol. 119, pp. 24614-24620.

20. "Synthesis and characterization of robust zero valent iron/mesoporous carbon composites and their applications in arsenic removal", Baikousi, M.; Georgiou, Y.; Daikopoulos, C.; **Bourlinos, A. B.**; Filip, J.; Zboril, R.; Deligiannakis, Y.; Karakassides, M. A., *Carbon*, 2015, vol. 93, pp. 636-647.

21. "Thiofluorographene-hydrophilic graphene derivative with semiconducting and genosensing properties", Urbanova, V.; Holá, K.; **Bourlinos, A. B.**; Čépe, K.; Ambrosi, A.; Loo, A. H.; Pumera, M.; Karlický, F.; Otyepka, M.; Zbořil, R., *Advanced Materials*, 2015, vol. 27, pp. 2305-2310.

22. "Green and simple route toward boron doped carbon dots with significantly enhanced non-linear optical properties", **Bourlinos, A. B.**; Trivizas, G.; Karakassides, M. A.; Baikousi, M.; Kouloumpis, A.; Gournis, D.; Bakandritsos, A.; Hola, K.; Kozak, O.; Zboril, R.; Papagiannouli, I.; Aloukos, P.; Couris, S., *Carbon*, 2015, vol. 83, pp. 173-179.

23. "Nonlinear optical properties of colloidal carbon nanoparticles: nanodiamonds and carbon dots", Papagiannouli, I.; **Bourlinos, A. B.**; Bakandritsos, A., Couris, S., *RSC Advances*, 2014, vol. 4, pp. 40152-40160.

24. "Quaternized carbon dot-modified graphene oxide for selective cell labeling-controlled nucleus and cytoplasm imaging", Datta, K. K. R.; Kozak, O.; Ranc, V.; Havrdova, M.; **Bourlinos, A. B.**; Safarova, K.; Hola, K.; Tomankova, K.; Zoppellaro, G.; Otyepka, M.; Zboril, R., *Chemical Communications*, 2014, vol. 50, pp. 10782-10785.

25. "Arsenite remediation by an amine-rich graphitic carbon nitride synthesized by a novel low-temperature method", Daikopoulos, C.; Georgiou, Y.; **Bourlinos, A. B.**; Baikousi, M.; Karakassides, M. A.; Zboril, R.; Steriotis, T. A.; Deligiannakis, Y., *Chemical Engineering Journal*, 2014, vol. 256, pp. 347-355.

26. "Third-order nonlinear optical response and optical limiting of colloidal carbon dots", Aloukos, P.; Papagiannouli, I.; **Bourlinos, A. B.**; Zboril, R.; Couris, S., *Optics Express*, 2014, vol. 22, pp. 12013-12027.

27. "A functionalized phosphonate-rich organosilica layered hybrid material (PSLM) fabricated through a mild process for heavy metal uptake", Daikopoulos, C.; **Bourlinos, A. B.**; Georgiou, Y.; Deligiannakis, Y.; Zboril, R.; Karakassides, M. A., *Journal of Hazardous Materials*, 2014, vol. 270, pp. 118-126.

28. "Photoluminescence effects of graphitic core size and surface functional groups in carbon dots: COO^- induced red-shift emission", Hola, K.; **Bourlinos, A. B.**; Kozak, O.; Berka, K.; Siskova, K. M.; Havrdova, M.; Tucek, J.; Safarova, K.; Otyepka, M.; Giannelis, E. P.; Zboril, R., *Carbon*, 2014, vol. 70, pp. 279-286.

29. "Fluoro-graphene: nonlinear optical properties", Liaros, N.; **Bourlinos, A. B.**; Zboril, R.; Couris, S., *Optics Express*, 2013, vol. 21, pp. 21028-21039.

30. "Novel ordered mesoporous carbon with innate functionalities and superior heavy metal uptake", Baikousi, M.; Daikopoulos, C.; Georgiou, Y.; **Bourlinos, A. B.**; Zboril, R.; Deligiannakis, Y.; Karakassides, M., *Journal of Physical Chemistry C*, 2013, vol. 117, pp. 16961-16971.

31. "Carbon-dot organic surface modifier analysis by solution-state NMR spectroscopy", Philippidis, A.; Spyros, A.; Anglos, D.; **Bourlinos, A. B.**; Zboril, R.; Giannelis, E. P., *Journal of Nanoparticle Research*, 2013, vol. 15, 1777 (9 pp).

32. "Tuning the dispersibility of carbon nanostructures from organophilic to hydrophilic: towards the preparation of new multipurpose carbon-based hybrids", Georgakilas, V.; Kouloumpis, A.; Gournis, D.; **Bourlinos, A. B.**; Trapalis, C.; Zboril, R., *Chemistry-A European Journal*, 2013, vol. 19, pp. 12884-12891.

33. "Lipid enhanced exfoliation for production of graphene nanosheets", Pykal, M.; Safarova, K.; Machalova-Siskova, K.; Jurecka, P.; **Bourlinos, A. B.**; Zboril, R.; Otyepka, M., *Journal of Physical Chemistry C*, 2013, vol. 117, pp. 11800-11803.

34. "Synthesis, characterization and non-linear optical response of organophilic carbon dots", **Bourlinos, A. B.**; Karakassides, M. A.; Kouloumpis, A.; Gournis, D.; Bakandritsos, A.; Papagiannouli, I.; Aloukos, P.; Couris, S.; Hola, K.; Zboril, R.; Krysmann, M.; Giannelis, E. P., *Carbon*, 2013, vol. 61, pp. 640-643.

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Publications (peer-review): **121**

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-ADVANCED FUNCTIONAL MATERIALS (WILEY-VCH): *2x**15.621***
-ADVANCED MATERIALS (WILEY-VCH): *4x**25.809***
-APPLIED MATERIALS TODAY (ELSEVIER): *3x**8.013***
-APPLIED ORGANOMETALLIC CHEMISTRY (WILEY): *1x**3.259***
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-JOURNAL OF MATERIALS SCIENCE (SPRINGER): *8x**3.442***
-JOURNAL OF NANOPARTICLE RESEARCH (SPRINGER): *3x**2.009***
-JOURNAL OF NANOSCIENCE & NANOTECHNOLOGY (ASP): *1x**1.093***
-JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS (INOE): *1x**0.588***
-JOURNAL OF PHYSICAL CHEMISTRY B (ACS): *3x**2.923***
-JOURNAL OF PHYSICAL CHEMISTRY C (ACS): *7x**4.309***
-JOURNAL OF PHYSICS: CONDENSED MATTER (IOP): *2x**2.711***
-LANGMUIR (ACS): *2x**3.683***
-MACROMOLECULAR MATERIALS AND ENGINEERING (WILEY): *1x**3.038***
-MATERIALS LETTERS (ELSEVIER): *2x**3.019***
-MATERIALS RESEARCH INNOVATIONS (SPRINGER): *1x**0.830***
-MICROPOROUS & MESOPOROUS MATERIALS (ELSEVIER): *2x**4.182***
-NANOSCALE (RSC): *2x**6.970***
-NANOSCALE RESEARCH LETTERS (SPRINGER): *1x**3.159***
-NATURE COMMUNICATIONS (NPG): *1x**11.880***
-OPTICS EXPRESS (OSA): *2x**3.561***
-PHYSICAL REVIEW B (APS): *1x**3.736***
-POLYHEDRON (ELSEVIER): *1x**2.284***
-POLYMER (ELSEVIER): *1x**3.771***
-RSC ADVANCES (RSC): *1x**3.049***
-SMALL (WILEY-VCH): *6x**10.856***
-SOFT MATTER (RSC): *1x**3.399***
-SOLID STATE COMMUNICATIONS (ELSEVIER): *1x**1.433***
-THE EUROPEAN PHYSICAL JOURNAL E (SPRINGER): *1x**1.686***
-THIN SOLID FILMS (ELSEVIER): *1x**1.888***