

Curriculum Vitae

First name / Surname

Ioan-Alexandru Turza

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Gender Male | Date of birth 31/03/1990 | Nationality Roumanian

CURRENT STATUS

Physicist / Researcher

Group of Carbon Nanostructures: Synthesis and Applications, Mass Spectrometry, Chromatography and Applied Physic, National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Romania

website: www.itim-cj.ro

MAIN RESEARCH FIELDS

X ray powder diffraction

Qualitative and quantitative phase analysis

Crystallite size and strain

Degree of preferential orientation

Ab initio crystal structure determination from powder diffraction data

Single crystal X ray diffraction

Crystal structure determination for organic and organometallic compounds

Crystallization and polymorphism

Single crystal and polymorph obtaining using different methods: vapour diffusion, liquid diffusion, slow evaporation, high-throughput crystallisation.

PROFESSIONAL AFFILIATIONS

KEY AREAS OF RESEARCH

X-ray diffraction

EDUCATIONAL BACKGROUND

2014-present

Physics PhD

Babes-Bolyai University, Faculty of Physics,

Cluj-Napoca, Romania

2012-2014

Master's Degree in Solid State Physics (title of work: Crystal structure determination of pharmaceutical compounds),

Babes-Bolyai University, Faculty of Physics,

Cluj-Napoca, Romania

2008-2012

Bachelor degree involving X-ray diffraction

Babes-Bolyai University, Faculty of Physics,

Cluj-Napoca, Romania

ANNEXES

List of journal publications

1. A. C. Hangan, **A. Turza**, R. L. Stan, R. Stefan, L. S. Oprean, *Synthesis, crystal structure, properties, and nuclease activity of a new Cu(II) complex [Cu(L)(2)(Py)(2)(H2O)] (HL = N-(5-(4-methylphenyl)-[1,3,4]-thiadiazole-2-yl)toluenesulfonamide)*, *RUSSIAN JOURNAL OF COORDINATION CHEMISTRY*, 41, 395-404 (2015).
2. M. C. Rosu, M. Coros, F. Pogacean, L. Magerusan, C. Socaci, **A. Turza**, S. Pruneanu, *Azo dyes degradation using*

TiO₂-Pt/graphene oxide and TiO₂-Pt/reduced graphene oxide photocatalysts under UV and natural sunlight irradiation, *SOLID STATE SCIENCES*, Volume: 70, 1 Pages 3-20 (2017).

3. A. C. Hangan; **A. Turza**; R. L. Stan; B. Sevastre; E. Pall; S. Cetean; L. S. Oprean, Synthesis, crystal structure and characterization of new biologically active Cu(II) complexes with ligand derived from N-substituted sulfonamide, *JOURNAL OF CHEMICAL SCIENCES*, Volume: 128, Pages:815-824 (2016).
4. C. Marutiou, L. Trosan, V. D. Toader, Z. Moldovan, **A. Turza**, C. Tanaselia, I. Bratu, Scientific investigation of pigments employed for "crucifixion" processional flag painting from the ethnographic museum of transylvania heritage, *STUDIA UNIVERSITATIS BABES-BOLYAI CHEMIA*, 58, 161-172 (2013).
5. A. C. Hangan; L. Stan; **A. Turza**; L. S. Oprean; E. Pall; S. G-Cetean, Synthesis, crystal structures, characterization and antitumor activities of two copper(II) complexes of a sulfonamide ligand, *TRANSITION METAL CHEMISTRY*, Volume 42, Pages: 153-164 (2017).
6. L. Magerusan, C. Socaci, F. Pogacean, M. C. Rosu, A. R. Biris, M. Coros, **A. Turza**, V. Floare-Avram, G. Katona, S. Pruneanu, Enhancement of peroxidase-like activity of N-doped graphene assembled with iron-tetrapyridylporphyrin, *RSC ADVANCES*, Volume 6, Pages: 79497-79506 (2016).
7. M. C. Rosu, E. Pall, C. Socaci, L. Magerusan, F. Pogacean, M. Coros, **A. Turza**, S. Pruneanu, Cytotoxicity of methylcellulose-based films containing graphenes and curcumin on human lung fibroblasts, *PROCESS BIOCHEMISTRY*. Volume: 52, Pages: 243-249 (2017).
8. A. C. Hangan, **A. Turza**, R. L. Stan, L. S. Oprean, Synthesis, Crystal Structures and Characterization of a New Antitumor Cu(II) Complex with N-sulfonamide Ligand, *REV.CHIM.(Bucharest)*, Volume 69, Pages: 1407-1410 (2018).
9. F. Pogacean, M. Coros, L. Magerusan, V. Mirel, **A. Turza**, G. Katona, R-I. S-van Staden, S. Pruneanu, Exfoliation of graphite rods via pulses of current for graphene synthesis: Sensitive detection of 8-hydroxy-2'-deoxyguanosine, *Talanta*, Volume 196, Pages: 182-190 (2019).
10. T. Dippong, E.A. Levei, L. Senila, **A. Turza**, Synthesis of Acetylsalicylic Acid by two alternative methods that can be used in food industry, *Mineral Processing, Non-ferrous Metallurgy, Geology and Environmental Engineering* Volume XXVIII, No. 1 (2014).
11. G. Borodi, **A. Turza**, O. Onija, A. Bende, "Succinic, fumaric, adipic and oxalic acid cocrystals of promethazine hydrochloride", *Acta Cryst.* (2019). C75

Conferences:

1. M C Rosu, F Pogacean, M Coros, C Socaci, A Biris, A Turza, G Katona, S Pruneanu *Amaranth dye degradation by UV-assisted TiO₂-Ag/graphene composites*, 10th International Conference Processes in Isotopes and Molecules PIM 2015, Cluj – Napoca
2. L. Măgerușan, C. Socaci, F. Pogăcean, M. Coroș, M. C. Roșu, A. Turza, S. Pruneanu, N- doped graphene nanomaterial for chemical/electrochemical detection of H₂O₂, Analytical and Nanoanalytical Methods for Biomedical and Environmental Sciences "IC-ANMBES 2016" 29 June-1 July 2016, Brașov, Romania
3. F. Pogăcean, M. Coroș, L. Măgerușan, M. C. Roșu, A. Turza, C. Socaci, S. Pruneanu, Electrochemical detection of phenolic compounds with graphene- porphyrin modified electrode, 11th biennial International Conference on Processes in Isotopes and Molecules (PIM 2017), 27-29 September 2017, Cluj- Napoca, Romania
4. M. Coroș, M. C. Roșu, F. Pogăcean, L. Măgerușan, C. Socaci, A. Turza, S. Pruneanu, TiO₂- Pt based photocatalysts sunset yellow degradation under natural solar exposure, containing graphene oxide and reduced graphene oxide for Advances on Photocatalysis, AdvPhotoCat- E 2017, The 2nd International Workshop, 14-16 July, 2017 Technological Educational Institute (TEI) of Crete, Heraklion, Greece
5. F. Pogăcean, M. C. Roșu, M. Coroș, L. Măgerușan, A. Turza, C. Socaci, S. Pruneanu, Photocatalytic efficiency of TiO₂- Au/graphene oxide catalysts on amaranth degradation under sun light irradiation, Advances on Photocatalysis, AdvPhotoCat- E 2017, The 2nd International Workshop, 14-16 July, 2017 Technological Educational Institute (TEI) of Crete, Heraklion, Greece
6. S. Pruneanu, F. Pogăcean, M. Coroș, L. Măgerușan, M. C. Roșu, C. Socaci, A. Biriș, A. Turza, A. S. Porav, Synthesis of graphene- based nanomaterials: their applications in electrochemical detection of organic molecules, International Research Center in Critical Raw Materials for Advanced Industrial Technologies" (ICCRAM), 2-3 October 2017, Burgos, Spain
7. M. Coros, F. Pogacean, M.C. Rosu, L. Magerusan, C. Socaci, A. Turza, S. Pruneanu, International Conference on Processes in Isotopes and Molecules (PIM 2017), 27-29 September 2017, Cluj-Napoca, Romania – poster "Graphene-gold nanoparticles composites: Synthesis and application
8. International Conference on Processes in Isotopes and Molecules (PIM 2017), 27-29 September 2017, Cluj-Napoca, Romania – Oral presentation "Graphene synthesis through electrochemical exfoliation of graphite rod" S. Pruneanu, F. Pogacean, M. Coros, L. Magerusan, M. C. Rosu, C. Socaci, A. Turza (CO).
9. Synthesis of graphene-based nanomaterials: their applications in electrochemical detection of organic molecules, Stela Pruneanu, Florina Pogacean, Maria Coros, Lidia Magerusan, Marcela-Corina Rosu, Crina Socaci, Alexandru Biris, Alexandru Turza, Alin Sebastian Porav - oral presentation (NANOGENTOOLS AUTUMN SCHOOL "ADVANCED TRAINING IN UNDERSTANDING THE SAFETY OF NANOMATERIAL"; 2nd-3rd October 2017, Burgos, Spain).