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RESEARCH:

My fields of interest are analytical chemistry, environmental chemistry and toxicology.

One of the research interest is focused on understanding the pathways of action of Balkan Endemic Nephropathy cofactors, aristolochic acids. To a better understanding of this disease, field and laboratory work are combined. Collection of various environmental samples (soil, coal, water, plants, air) are made and analysed by different types of chromatography techniques (HPLC, LC-MS, GC-MS).

Another field of interest is both analytical and in vitro toxicology. Environmental (plants, water, soil, etc.) and biological samples (blood, plasma, serum, tissue, cells, urine, etc.) are collected and analysed by the chemical composition (LC-MS, GC-MS) and also by their cytotoxicity on different cell lines with various in vitro assays (MTT, Alamar Blue).

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3. Mirabela I. Cristea, **Alexandra T. Gruia**, Valentin L. Ordodi, Oana I. Gavriliuc, Ileana Scurtu, Violeta Moica, Simona Anghel, Florin Margineanu, Nikola Pavlovic, Elena Gai, Victor Dumitrascu, Fabian Tatu, Virgil Paunescu, Calin A. Tatu, Aristolochia Clematitis in Traditional Medicine Recipes: Toxin or Remedy?, *Central European Journal of Occupational and Environmental Medicine*, 2009, 15(1-2):7-18.
4. Valentin Ordodi, Gabriela-Alina Dumitrel, **Alexandra Gruia**, Mihai Iacob, Gheorghita Jinescu, Delia Perju, Electrochemical Microinstallation for Cytostatic Wastes Epuration, *Rev Chim*, 2010, 61(9):857-861.
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6. Paunescu V, Bojin FM, Tatu CA, Gavriliuc OI, Rosca A, **Gruia AT**, Tanasie G, Bunu C, Crisnic D, Gherghiceanu M, Tatu FR, Tatu CS, Vermesan S, Tumour-associated fibroblasts and mesenchymal stem cells: more similarities than differences, *J Cell Mol Med*, 2011, 15(3):635-46.
7. Nicoleta G. Hădărugă, Alina Gharibeh Branic, Daniel I. Hădărugă, **Alexandra Gruia**, Carmen Plesa, Corina Costescu, Aurel Ardelean, Alfa Xenia Lupea, Comparative Study of *Juniperus communis* and *Juniperus virginiana* Essential Oils: TLC and GC Analysis, *Journal of Planar Chromatography*, 2011, 24(2), 000–000.
8. Branic AG, Plesa CM, Hadaruga NG, Ardelean A, Hadaruga DI, Ordodi VL, **Gruia AT**, Lupea AX, A Comparative Study of Juniperus communis and Juniperus virginiana Extracts The Influence of method, solvent, and provenience, REVISTA DE CHIMIE, 2011, 62(5):508-513.

9. Alina Gharibeh Branic, Carmen-Manuela Plesa, Nicoleta Gabriela Hadaruga, Aurel Ardelean, Daniel Ioan Hadaruga, Valentin Laurentiu Ordodi, **Alexandra Teodora Gruia**, Alfa Xenia Lupea, A Comparative Study of *Juniperus communis* and *Juniperus virginiana* Extracts. The Influence of method, solvent, and provenience, *Rev Chim*, 2011, 62(5):508-513.
10. **Gruia AT**, Barbu-Tudoran L, Mic AA, Ordodi VL, Paunescu V, Mic FA, Arachidonic acid accumulates in the stromal macrophages during thymus involution in diabetes, *Histochem Cell Biol.*, 2011, 136(1):79-92.
11. Bojin FM, **Gruia AT**, Cristea MI, Ordodi VL, Paunescu V, Mic FA, Adipocytes differentiated in vitro from rat mesenchymal stem cells lack essential free fatty acids compared to adult adipocytes, Stem Cells Dev., 2012 Mar 1; 21(4):507-12.
12. Jianu C, Misca C, Pop G, Rusu LC, Ardelean L, **Gruia AT**, Chemical Composition and Antimicrobial Activity of Essential Oils Obtained from Dill (Anethum graveolens L.) Grown in Western Romania, Revista de Chimie, 2012, 63(6):641-645.
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17. Daniel I. Hadaruga, Nicoleta G. Hadaruga, Corina I. Costescu, Ioan David, **Alexandra T. Gruia**, Thermal and oxidative stability of the *Ocimum basilicum* L. essential oil/ß-cyclodextrin supramolecular system, *Beilstein J. Org. Chem.,* 2014; 10: 2809–2820.
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20. Daniel I Hădărugă, Mustafa Ünlüsayin, **Alexandra T Gruia**, Cristina Birău (Mitroi), Gerlinde Rusu, Nicoleta G Hădărugă Thermal and oxidative stability of Atlantic salmon oil (*Salmo salar* L.) and complexation with β-cyclodextrin, Beilstein J Org Chem. 2016; 12: 179–191.

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