

## Anexa 2a

**Titlu proiect:** Influența analizei cromatografice a substanțelor cu proprietăți ignifuge asupra estimării expunerii umane la compuși organohalogenați

**Categorie de proiect:** PN-II-RU-TE-2014-4

**Contractul de finanțare:** 282/01.10.2015

**Manager proiect:** Conf. Univ. Dr. Alin C. DIRTU

### Lista rezultate

Nr. crt.	NUME AUTORI	TITLUL ARTICOLULUI/ CĂRȚII / COMUNICĂRII ȘTIINȚIFICE	REVISTA / VOLUMUL/EDITURA IN CARE A APARUT / CONFERINTA LA CARE S-A COMUNICAT	ANUL PUBLICARII/ COMUNICARII
<b>ARTICOLE ISI</b>				
1	Dan Maftei, Mihai Dumitras, Dragos L. Isac, Alin C. DIRTU	Density functional study of bond dissociation energies in highly brominated diphenyl ethers.	Studia UBB Chemia, LXI, 4	2016
2	Mihai Dumitras, Dan Maftei, Anton Airinei, Nita Tudorachi, Alin C. DIRTU	NPK analysis of the thermal degradation of decabromodiphenyl ether	Revista de Chimie, 68 (11), 2734-2738	2017
3	Mihai Dumitras, Liviu Leontie, Dan Maftei, Alin C. DIRTU	Kinetic analysis of the thermal degradation of two brominated flame retardants	Journal of Thermal Analysis and Calorimetry	Submis spre publicare
4	Dan Maftei, Dragos L. Isac, Mihai Dumitras, Stefan Bucur, Alin C. DIRTU	Trends in Bond Dissociation Energies of Brominated Flame Retardants from Density Functional Theory	Structural Chemistry, <a href="https://doi.org/10.1007/s11224-018-1078-4">https://doi.org/10.1007/s11224-018-1078-4</a>	2018
<b>ARTICOLE ALTE BAZE DE DATE</b>				
1	Mihai Dumitras, Dan Maftei, Dragos L. Isac, Anton Airinei, Alin C. DIRTU	Thermal degradation study of decabromodiphenyl ether. Translating thermo-analytical results into optimal chromatographic conditions.	Acta Chemica Iasi, 24 (2)	2016
<b>COMUNICARI ȘTIINȚIFICE NAȚIONALE</b>				
1	Mihai Dumitras, Dan Maftei, Dragos L. Isac, Alin C. DIRTU	Study on the kinetics and mechanism of decabromodiphenyl ether thermal degradation.	XXXIV-th Romanian Chemistry Conference, Calimanesti-Caciulata, Valcea, Romania.	2016
2	Dan Maftei, Mihai Dumitras, Dragos L.	Computational thermochemistry of	XXXIV-th Romanian Chemistry Conference,	2016

	Isac, Alin C. DIRTU	brominated flame retardants. Case study of decabromo-diphenyl ether.	Calimanesti-Caciulata, Valcea, Romania	
3	Dragos L. Isac, Mihai Dumitras, Dan Maftei, Anton Airinei, Alin C. DIRTU	Study on the thermal degradation of brominated flame retardants: computational thermochemistry, kinetics and degradation mechanism.	“Alexandru Ioan Cuza” University Days, Faculty of Chemistry Conference, Iași, România	2016
4	Stefan Bucur, Dragos L. Isac, Dan Maftei, Mihai Dumitras, Alin C. DIRTU	New insights into brominated flame retardants structure: computational assessment of $\sigma$ -hole effect.	Scientific Communications Session for Bachelor, Master of Science and PhD Students, Faculty of Chemistry, “Alexandru Ioan Cuza” University of Iasi, Romania	2017
5	Dragos-Lucian Isac, Stefan Bucur, Dan Maftei, Mihai Dumitras, Alin C. DIRTU	Aspecte teoretice privind structurile chimice ale compusilor ignifugi bromurati. Metode noi de evidențiere a efectelor regiunii $\sigma$ și $\pi$ .	Zilele Academice Ieșene (ZAI), Iași, România	2017
<b>COMUNICARI STIINȚIFICE INTERNATIONALE</b>				
1	Alin C. DIRTU, Dan Maftei, Mihai Dumitras, Mirela Sucea, Adrian Covaci	Influence of the chromatographic analysis of flame retardants on the estimation of human exposure to organohalogenated compounds.	Nanoscience in Chemistry, Physics, Biology and Mathematics – NanoMathChem, Cluj, Romania.	2015
2	Alin C. DIRTU, Mihai Dumitras, Dan Maftei, Anton Airinei, Nita Tudorachi, Dragos L. Isac	Thermal degradation study of brominated flame retardants with emphasis on the estimation of human exposure through indoor dust ingestion.	12th International Conference on Colloid and Surface Chemistry – ICCSC, Iasi, Romania.	2016
3	Alin C. DIRTU, Dan Maftei, Mihai Dumitras, Adrian Covaci	Challenges in gas-chromatographic analysis of thermal unstable compounds. Case study for brominated flame retardants.	3rd International Conference on Analytical Chemistry – RO-ICAC, Iasi, Romania	2016
4	Dan Maftei, Mihai Dumitras, Dragos L. Isac, Alin C. DIRTU	Thermal degradation pathways of selected brominated flame retardants from first principles.	International Conference of Physical Chemistry – ROMPHYSCHM, Galati, Romania	2016
5	Mihai Dumitras, Dan Maftei, Anton Airinei, Alin C. DIRTU	NPK analysis of the thermal degradation of selected brominated flame retardants.	International Conference of Physical Chemistry – ROMPHYSCHM, Galati, Romania	2016
6	Alin C. DIRTU, Mihai Dumitras, Dan Maftei, Adrian Covaci	Challenges in brominated flame retardants analysis in dust samples from personal computers. Case study in a	19th International Conference – Materials, Methods & Technologies, Elenite, Bulgaria	2017

		university campus from Eastern Romania.		
7	Dan Maftei, Dragos L. Isac, Stefan Bucur, Alin C. Dirtu	Bond dissociation enthalpies in selected brominated flame retardants from density functional theory.	19th International Conference – Materials, Methods & Technologies, Elenite, Bulgaria	2017
8	Mihai Dumitras, Dan Maftei, Dragos L. Isac, Alin C. Dirtu	Comparative study of the thermal degradation of two brominated flame retardants.	19th International Conference – Materials, Methods & Technologies, Elenite, Bulgaria	2017
9	Mihai Dumitras, Dan Maftei, Dragos L. Isac, Alin C. Dirtu	NPK analysis of the thermal degradation of two brominated flame retardants.	Colloque Franco-Roumain de Chimie Médicinale (CoFrRoCM) – 4th Edition, Iasi, Romania	2017

### Lista achizițiilor realizate în cadrul proiectului

Denumire echipament	Categorie de achiziții*: (numai mijloace fixe)	Valoarea (lei)	Locație
Baie ultrasunete-6 l	Echipament de laborator	3273.6	Facultatea de Chimie, UAIC
Pompa de vacuum cu diafragma Laboport N 820.3FT.18	Echipament de laborator	7080	Facultatea de Chimie, UAIC
Sistem de extractie in faza solida SPE	Echipament de laborator	6601.48	Facultatea de Chimie, UAIC
Generator de azot Precision, 600 mL/min	Echipament de laborator	21250.80	Facultatea de Chimie, UAIC
LH10.1-Evaporator rotativ LH10.1	Echipament de laborator	13330.13	Facultatea de Chimie, UAIC
Baie de concentrare in curent de azot cu 27 de porturi	Echipament de laborator	16224	Facultatea de Chimie, UAIC
Nisa chimica aspiranta LFH-150SCI	Echipament de laborator	23760	Facultatea de Chimie, UAIC

Balanta analitica ABJ 120-4nm, 120g	Echipament de laborator	4482.14	Facultatea de Chimie, UAIC
Pompa livrare solvent LC-20AD	Echipament de laborator	21896	Facultatea de Chimie, UAIC
Sistem manual de introducere a probei Reodyne 50/100	Echipament de laborator	7187.6	Facultatea de Chimie, UAIC

**Categorie de achiziții\*:**

1. Echipamente și aparatură de cercetare
2. Rețele de comunicații specializate
3. Baze de date și informații de specialitate
4. Echipamente și mijloace moderne de documentare și comunicare
5. Alte categorii

**Director proiect,**  
**Conf. Univ. Dr. Alin C. DIRTU**

