

Lista lucrărilor publicate

1. Damian Axente, **Ancuța Balla**, Ștefan Bugeac, Mihai Gligan, Cristina Marcu, "The calculus of the operation parameters at pressure of the primary separation column of the ^{15}N production plant", Rev. Chim. Bucharest, 68(11), 2533-2537 (2017).
2. Damian Axente, **Ancuța Balla**, Cristina Marcu, "The energy consumptions for thermo-catalytic conversion of sulphuric acid into sulphur dioxide for its recycling in the ^{15}N production plant", Rev. Chim. Bucharest, 67(8), 1551-1554 (2016).
3. Cristina Marcu, Damian Axente, **Ancuța Balla**, "Study of Fe(III) adsorption onto Dowex-Marathon resin, as a rate determining step of the U(IV) oxidation in ^{235}U enrichment column", J. Radioanal. Nucl. Chem., DOI 10.1007/s10967-015-4273-4 (2015).
4. **Ancuța Balla**, Damian Axente, Cristina Marcu, "Sizing of a catalytic reactor for sulfuric acid reduction to sulfur dioxide based on the activation parameters of $\text{SO}_3 \rightarrow \text{SO}_2$ reaction", Rev. Chim. Bucharest, 66(4), 556-561 (2015).
5. Cristina Marcu, Damian Axente, **Ancuța Balla**, "Kinetic and thermodynamic studies of U(VI) adsorption using Dowex-Marathon resin", J. Radioanal. Nucl. Chem., 305(2), 623-630 (2015).
6. **Ancuța Balla**, Cristina Marcu, Damian Axente, Gheorghe Borodi, Diana Lazăr, "Catalytic reduction of sulfuric acid to sulfur dioxide", Cent. Eur. J. Chem., 10(6), 1817-1823 (2012). DOI: 10.2478/s11532-012-0099-x
7. Damian Axente, **Ancuța Balla**, Cristina Marcu, "Reduction of U(VI) adsorbed on anion exchange resin with V(III) in acid solution" J. Radioanal. Nucl. Chem., 288, 3, 717-721 (2011).
8. Damian Axente, Cristina Marcu, **Ancuța Mureșan**, Martin Kaucsar, Ioan Mișan, Gabriel Popeneciu, Nicolae Gligan, Gabriela Cristea, "The ^{14}N and ^{15}N simultaneous separation by $^{15}\text{N}/^{14}\text{N}$ exchange in NO , $\text{NO}_2 - \text{HNO}_3$ system under pressure", Isotopes in Environmental and Health Studies, 46, 2, 242-248 (2010).

Brevet

D. Axente, **Ancuța Balla**, C. Marcu, Ș. Gergely, Method and installation for sulfur dioxide and oxygen recycling in a plant for ^{15}N production by isotopic exchange in the $(\text{NO}, \text{NO}_2)_{(\text{g})} - \text{HNO}_{3(\text{s})}$ system, Brevet Nr. RO 131314 B, 2019.

Lista lucrărilor prezentate la conferințe

1. **Ancuța Balla**, Damian Axente, Cristina Marcu, „Activation parameters for the catalytic reduction of sulfur trioxide”, XXXIII-th Romanian Chemistry Conference, Râmnicu Vâlcea, Romania, October 01 – 03, 2014.
2. Damian Axente, **Ancuța Balla**, „Design of a reactor for catalytic reduction of sulfuric acid to sulfur dioxide”, The 20th ICIT Conference in Cryogenics and Isotope Separation, Călimănești-Căciulata, Romania, 23-24 Oct. 2014.
3. Cristina Marcu, Damian Axente, **Ancuța Balla**, „Kinetic and thermodynamic studies of U(VI) adsorption using Dowex-Marathon resin”, XXXIII-th Romanian Chemistry Conference, Râmnicu Vâlcea, Romania, October 01 – 03, 2014.
4. Damian Axente, **Ancuța Balla**, “The energy consumption for thermo-catalytic reduction of sulfuric acid to sulfur dioxide for its recycling in the ^{15}N separation plant”, The 19th ICIT Conference in Cryogenics and Isotope Separation, Călimănești-Căciulata, Romania, 11-12 Oct. 2013.
5. **Ancuța Balla**, Damian Axente, Cristina Marcu, “Influence of temperature on the catalytic reduction of sulfuric acid to sulfur dioxide”, PIM 2013, Cluj-Napoca, Romania, 25-27 Sept. 2013.
6. **Ancuța Balla**, Cristina Marcu, Damian Axente, Gheorghe Borodi, Diana Lazăr, „Sulfuric acid reduction to sulfur dioxide over Pd/Al₂O₃ catalyst”, International Symposium of the Romanian Catalysis Society, RomCat 2013, May 29-31, Cluj-Napoca, Romania.
7. **Ancuța Balla**, Damian Axente, Cristina Marcu, “Determination of the activation energy for different catalysts in the sulfuric acid reduction to sulfur

- dioxide”, XXXII-th Romanian Chemistry Conference, Râmnicu Vâlcea, Romania, October 01 – 03, 2012
8. **Ancuța Balla**, Cristina Marcu, D.Axente, G. Borodi, N. Jumate, I. Vida – Simiti, “Catalytic reduction of sulfuric acid to sulfur dioxide”, PIM 2011, Cluj-Napoca, Romania, September 29-October 21, 2011.
 9. Cristina Marcu, D.Axente, **Ancuța Balla**, “The kinetics reduction of U(VI) adsorbed on anionit with Ti(III), in HCl solution”, PIM 2011, Cluj-Napoca, Romania, September 29-October 21, 2011.
 10. D.Axente, **Ancuța Balla**, Cristina Marcu, “Reduction of U(VI) adsorbed on anion exchange resin with V(III) in acid solution”, PIM 2011, Cluj-Napoca, Romania, 29 Sept. – 01 Oct. 2011.
 11. D.Axente, **Ancuța Balla**, Cristina Marcu, “Reduction of U(VI) adsorbed on anion exchange resin with V(III) in acid solution”, XXXI-th Romanian Chemistry Conference, Râmnicu Vâlcea, Romania, October 06 – 08, 2010.
 12. D.Axente, Cristina Marcu, **Ancuța Mureșan**, M.Kaucsar, I.Misan, G.Popeneciu, N.Gligan, Gabriela Cristea, “The ^{14}N and ^{15}N simultan separation by isotopic exchange in NO , NO_2 – HNO_3 system under pressure”, PIM 2008, Cluj-Napoca, Romania, September 22-24, 2008.
 13. M.Kaucsar, D.Axente, V.Cosma, Cristina Marcu, **Ancuța Mureșan**, “Precise position maintaining of the reaction zone in the product refluxer of ^{15}N separation plant using a simple on-off controller”, PIM 2008, Cluj-Napoca, Romania, September 22-24, 2008.
 14. D.Axente, **Ancuța Mureșan**, “Separation of lithium isotopes by chemical exchange chromatography”, The 14th ICIT Conference Progress in Cryogenics and Isotopes Separation, Călimănești-Căciulata, Romania, October 29-31, 2008.