

LIST OF SCIENTIFIC PAPERS

of a PhD student Aurelia - Elena CÎRCIUVOIANU (TUDOSE)

I. ARTICLES PUBLISHED IN ISI INDEXED JOURNALS

1. Florentina Golgovici, **Aurelia Elena Tudose**, Diana Diniași, Radu Nartiță, Manuela Fulger, Ioana Demetrescu, “Aspects of Applied Chemistry Related to Future Goals of Safety and Efficiency in Materials Development for Nuclear Energy”, Review, *Molecules* 2023, 28 (2), 874, <https://doi.org/10.3390/molecules28020874>, **IF (2024): 4.2/3 = 1.4**.
2. **Aurelia Elena Tudose**, Florentina Golgovici, Ioana Demetrescu, Manuela Fulger, Alexandru Anghel, Oana Brincoveanu, “Influence of chromium nitride ceramic layers thicknesses developed onto 310 H stainless steel on the corrosion resistance”, *U.P.B. Sci. Bull., Series B*, vol. 84, no. 4, 2022, pp. 191-202, ISSN 1454-2331, **IF (2024): 0.5**.
3. **Aurelia Elena Tudose**, Florentina Golgovici, Alexandru Anghel, Manuela Fulger, Ioana Demetrescu, “Corrosion Testing of CrN_x coated 310 H Stainless Steel under Simulated Supercritical Water Conditions”, *Materials* 2022, 15 (16), 5489, <https://doi.org/10.3390/ma15165489>, **IF (2024): 3.1**.
4. **Aurelia Elena Tudose**, Ioana Demetrescu, Florentina Golgovici, Manuela Fulger, “Oxidation Behavior of an Austenitic Steel (Fe, Cr and Ni), the 310 H, in a Deaerated Supercritical Water Static System”, *Metals* 2021, 11 (4), 571, <https://doi.org/10.3390/met11040571>, **IF (2024): 2.9**.

Cumulative FI: 1.4 + 0.5 + 3.1 + 2.9 = 7.9

II. NATIONAL AND INTERNATIONAL TECHNICAL-SCIENTIFIC EVENTS PARTICIPATION

National conferences

1. **Aurelia Elena Tudose**, Ioana Demetrescu, Florentina Golgovici, Manuela Fulger, Diana Diniași, “Corrosion of 310 H stainless steel in water under aggressive conditions”, AOSR National Autumn Scientific Conference, 23-27 November 2020, online (presentation).

2. Diniași, D.; Demetrescu, I.; Golgovici, F.; Fulger, F.; Surdu, C.; Anghel, A.; Bădulescu, M.; **Tudose A.**, “Application of TVA Coating Technology on Zy-4 Alloy and as-Received Cr Coating Characterization”, Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering - NanoBioMat 2021”, 25 - 26 June 2021, online.

International conferences

1. **Aurelia Elena Tudose**, Ioana Demetrescu, Florentina Golgovici, Manuela Fulger, Diana Diniași, Radu-Robert Piticescu, “NiCrAlY layers performance assessment developed onto 310H alloy by EB-PVD method after oxidation in aggressive conditions”, Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering” NanoBioMat 2024 - Summer Edition, 19 - 21 June 2024, online (presentation).
2. **Aurelia Elena Tudose**, Ioana Demetrescu, Florentina Golgovici, Manuela Fulger, Diana Diniași, Alexandru Anghel “Intergranular Corrosion Behavior Assessment of Uncoated and CrN_x-coated 310 H Stainless Steel by Sensitization Heat Treatments”, Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering” NanoBioMat 2023 - Winter Edition, 22 - 24 November 2023, online (presentation).
3. Diniași, D.; Golgovici, F.; Fulger, M.; **Tudose, A.**; Alexandru, A.; Demetrescu, I., “Comparative Evaluation of the Corrosion Performance of Two Chromium Coatings Deposited on Zy-4 Substrate”, Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering - NanoBioMat 2023 - Winter Edition”, 22 - 24 November, 2023, online.
4. **Aurelia Elena Tudose**, Ioana Demetrescu, Florentina Golgovici, Manuela Fulger, Cristina Surdu-Bob, Alexandru Anghel, Oana Brîncoveanu, Cosmin Romanițan “Characterization of oxides grown on uncoated and CrN_x coated 310 H stainless steel after exposure to supercritical water environment”, Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering” NanoBioMat 2023 - Summer Edition, 28 - 30 June 2023, online (presentation).

5. **Aurelia Elena Tudose**, Ioana Demetrescu, Florentina Golgovici, Manuela Fulger, Diana Dinași, Cristina Surdu-Bob, Alexandru Anghel, Marius Bădulescu, Oana Brîncoveanu, “Improving Corrosion Resistance of 310 H Stainless Steel Candidate for Generation IV Reactors by Deposition of Chromium Nitride Ceramic Layers”, Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering” NanoBioMat 2022 - Winter Edition, 24 - 26 November 2022, online (presentation).
6. Dinași, D.; Demetrescu, I.; Golgovici, F.; Butoi, B.; **Tudose A.**; Fulger, M., “Researches on corrosion testing and characterization of protective coatings deposited on Zy-4 substrate”, Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering - NanoBioMat 2022 - Winter Edition”, 24 - 26 November 2022, online.
7. **Aurelia Elena Tudose**, Ioana Demetrescu, Florentina Golgovici, Manuela Fulger, Diana Dinași, Cristina Surdu-Bob, Alexandru Anghel, Marius Bădulescu, “Electrochemical Investigation of Thin CrN_x Films Deposited on 310 H Stainless Steel by Thermoionic Vacuum Arc (TVA) Method”, Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering” NanoBioMat 2021, 25 - 26 June 2021, online (presentation).
8. Dinași, D.; Demetrescu, I.; Golgovici, F.; Fulger, F.; Surdu, C.; Anghel, A.; Bădulescu, M.; **Tudose A.**, “Application of TVA Coating Technology on Zy-4 Alloy and as-Received Cr Coating Characterization”, Virtual International Scientific Conference on “Applications of Chemistry in Nanosciences and Biomaterials Engineering - NanoBioMat 2021”, 25 - 26 June 2021, online.

III. BOOK

1. Manuela Fulger, Diana Dinași, **Aurelia Tudose**, “Nuclear grade austenitic alloys oxidation in water at supercritical temperature”, 2023, Bucharest, Eikon, ISBN 978-606-49-0846-9.