

## Surface pre-treatment of aluminum alloy for mechanical improvement of adhesive bonding by maple-assisted pulsed laser evaporation technique

(Supplementary file)

Edina Rusen<sup>1†</sup>, Oana Brîncoveanu<sup>2,3†</sup>, Valentina Dincă<sup>4</sup>, Gabriela Toader<sup>5</sup>, Aurel Diacon<sup>1,5</sup>,  
Miron Adrian Dinescu<sup>2</sup>, Alexandra Mocanu<sup>1,2\*</sup>

<sup>1</sup>University Politehnica of Bucharest, 1-7 Gh Polizu, Polizu Campus, Bucharest, Sector 1, RO-011061, Romania

<sup>2</sup>National Institute for Research and Development in Microtechnologies – IMT Bucharest, 126A Erou Iancu Nicolae Street, 077190 Bucharest, Romania

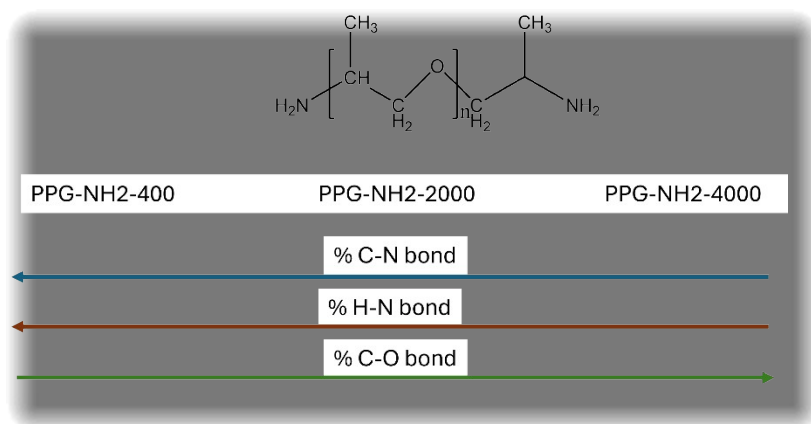
<sup>3</sup>Research Institute of the University of Bucharest, ICUB Bucharest, Soseaua Panduri, nr. 90, Sector 5, 050663, București

<sup>4</sup>National Institute for Laser, Plasma and Radiation Physics, 409 Atomiștilor Street, 077125, Măgurele, Ilfov, Romania

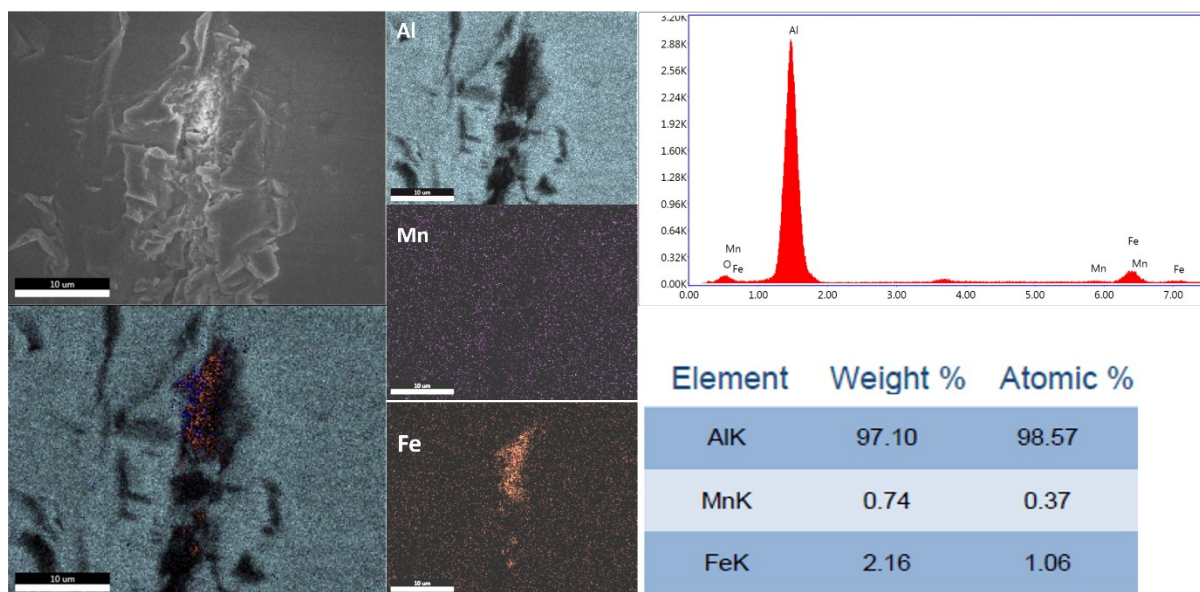
<sup>5</sup>Military Technical Academy “Ferdinand I”, 39-49 Blvd. George Coșbuc, Sector 5, Bucharest, 050141, Romania

†Edina Rusen and Oana Brincoveanu will both be considered as first authors

Corresponding author: [alexandra.mocanu@imt.ro](mailto:alexandra.mocanu@imt.ro)



**Figure S1.** Variation of polarity depending on the non-polar and polar groups from the chemical structure of PPG-NH<sub>2</sub>-based polymers



**Figure S2.** EDX spectrum and elemental mapping of untreated Al blank substrates



**Figure S3.** The post-fracture macro-images of the Al-PPG-NH<sub>2</sub>-400 (a), Al-PPG-NH<sub>2</sub>-2000 (b), and Al-PPG-NH<sub>2</sub>-4000 (c) specimens