

The Effect of Different Nanomaterials Additions in Clay-Based Composites on the Electromagnetic Transmission

Ivan Vrdoljak ^{1*}, Jelena Brdarić ^{2*}, Slavko Rupčić ³, Berislav Marković ², Ivana Miličević ¹, Vanja Mandrić ³, Damir Varevac ¹, Dalibor Tatar ², Nikolina Filipović ², Imre Szenti ⁴, Ákos Kukovecz ⁴

¹ Josip Juraj Strossmayer University of Osijek, Faculty of Civil Engineering and Architecture Osijek, Vladimira Preloga 3, HR-31000 Osijek, Croatia; ivrdoljak15@gfos.hr (I. Vrdoljak), ivana.milicevic@gfos.hr (I. Miličević), dvarevac@gfos.hr (D. Varevac)

² Josip Juraj Strossmayer University of Osijek, Department of Chemistry, Cara Hadrijana 8/A, HR-31000 Osijek; jbrdaric@kemija.unios.hr (J. Brdarić), bmarkovi@kemija.unios.hr (B. Marković), dtatar@kemija.unios.hr (D. Tatar), nfilipovic@kemija.unios.hr. (N. Filipović)

³ Josip Juraj Strossmayer University of Osijek, Faculty of Electrical Engineering, Computing, and Information Technologies Osijek, Kneza Trpimira 2B, HR-31000 Osijek, Croatia; slavko51062@gmail.com (S. Rupčić), vmandric@gmail.com (V. Mandrić)

⁴ Interdisciplinary Excellence Centre, Department of Applied and Environmental Chemistry, University of Szeged, Rerrich Béla tér 1, H-6720 Szeged, Hungary; szentiimre@gmail.com (I. Szenti), kakos@chem.u-szeged.hu (A. Kukovecz)

* Correspondence: ivrdoljak15@gfos.hr (I. Vrdoljak), jbrdaric@kemija@unios.hr (J. Brdarić)

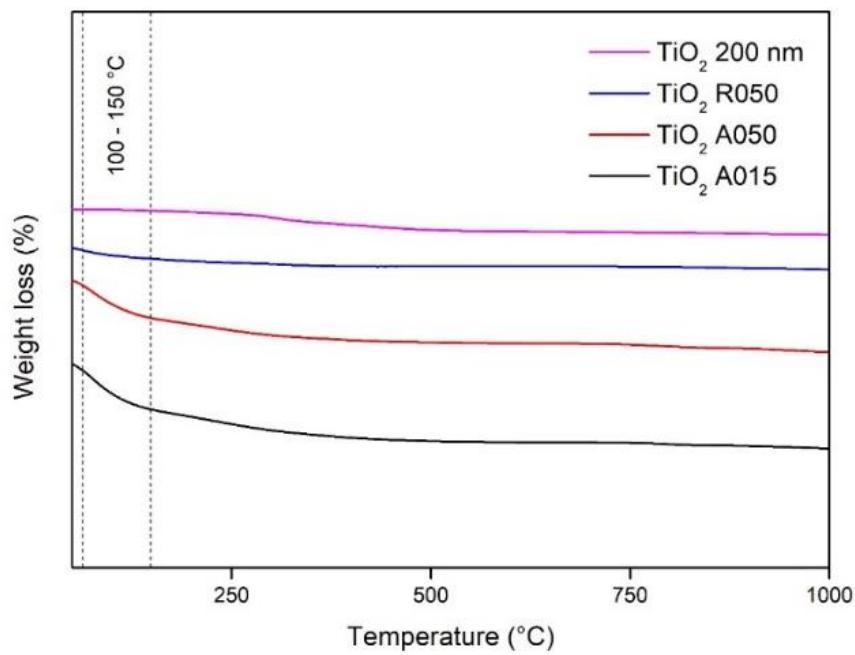


Figure S1. Thermograms of the four TiO_2 samples

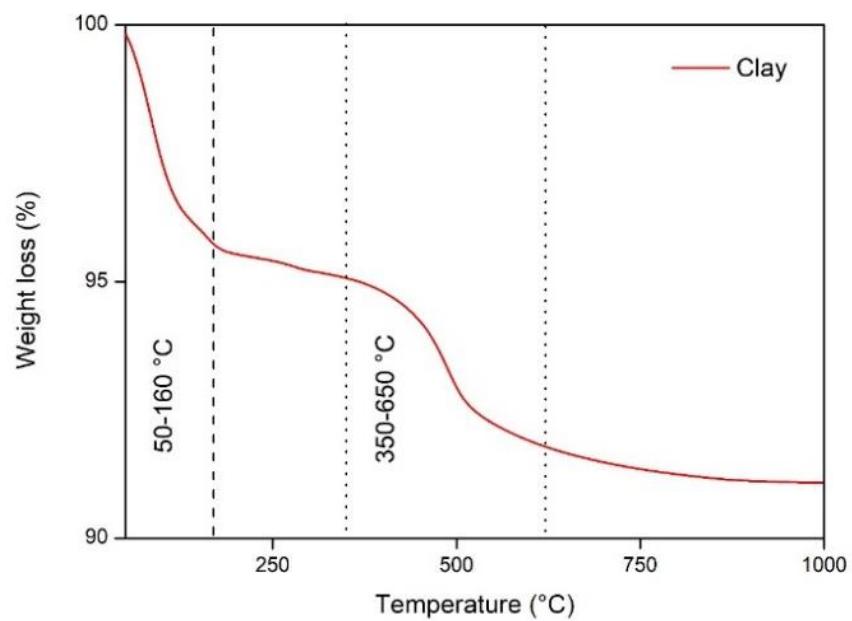


Figure S2. Thermogram of the clay sample

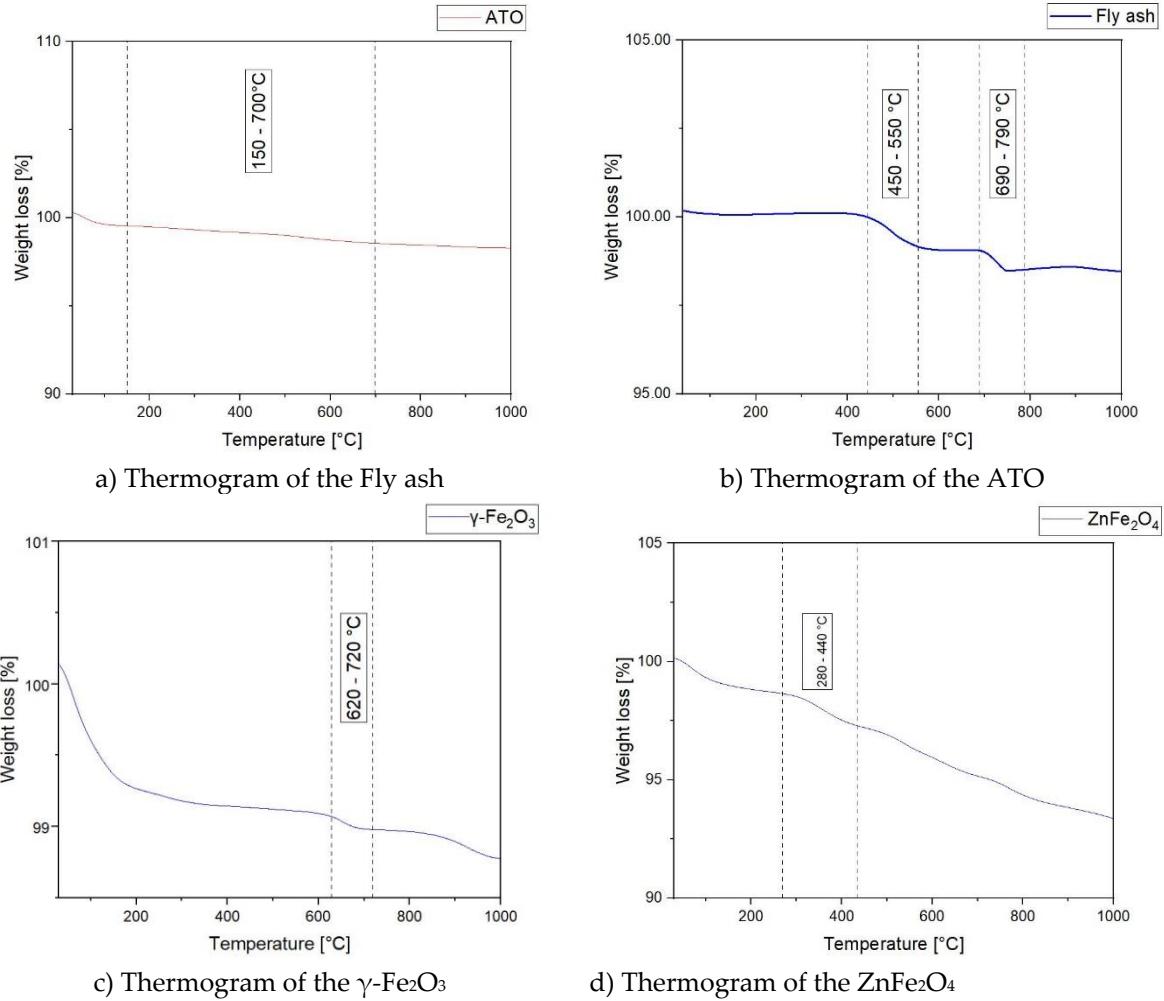


Figure S3: Thermogravimetric analysis of nanomaterials.

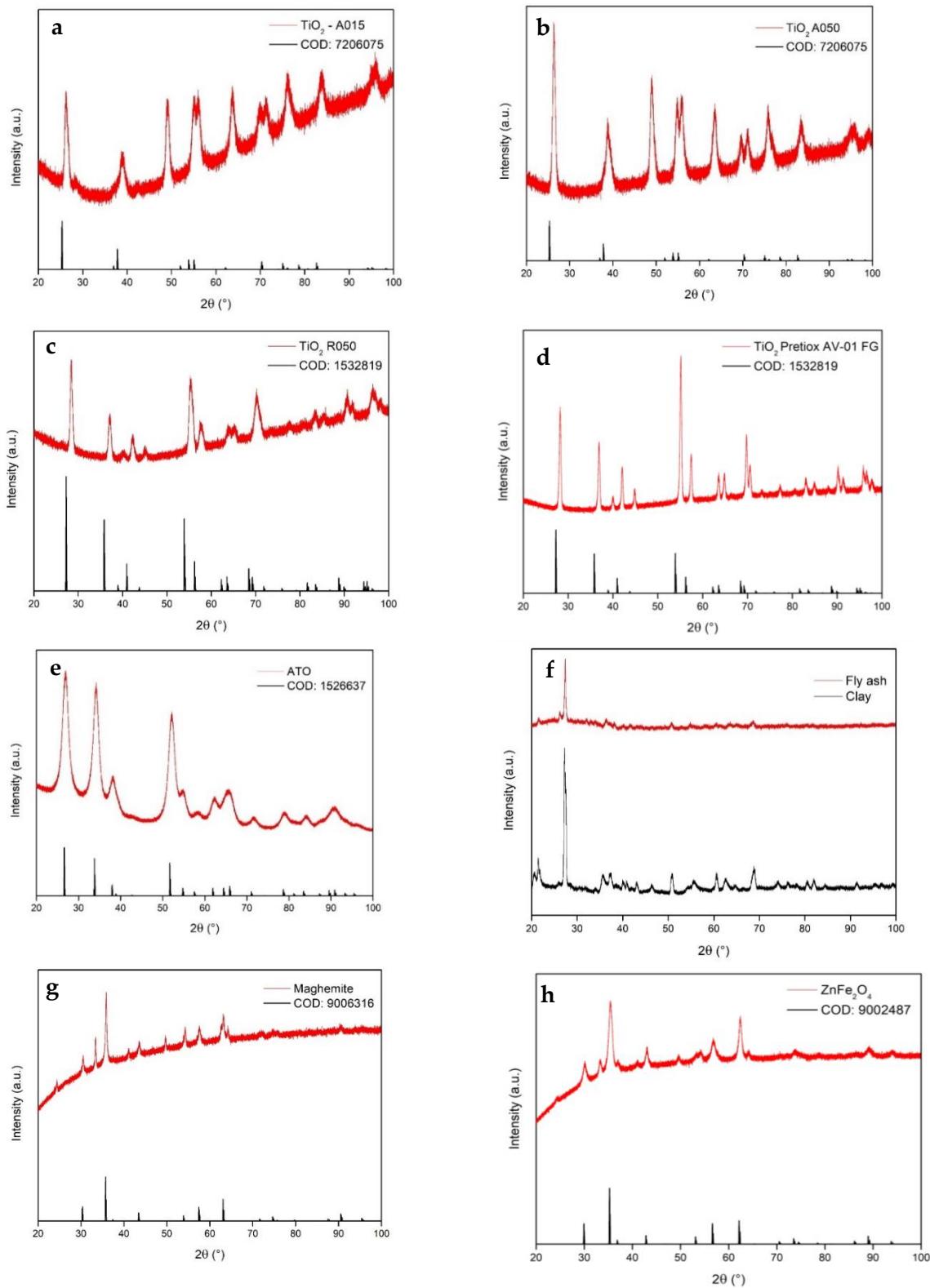


Figure S4: Diffraction patterns of: (a) TiO_2 A015, (b) TiO_2 A050, (c) TiO_2 R050, (d) TiO_2 Pretiox AV-01 FG, (e) ATO, (f) Fly ash and clay, (g) $\gamma\text{-Fe}_2\text{O}_3$, (h) ZnFe_2O_4 , compared to patterns from Crystallographic Open Database (COD) with their COD ID in legend.