

Single step *in situ* formation of porous Zinc Oxide/PMMA nanocomposites by pulsed laser irradiation: kinetic aspects and mechanisms

Davide Morselli,^a Alice Scarpellini,^b Athanassia Athanassiou^a and Despina Fragouli^a

^a Smart Materials, Istituto Italiano di Tecnologia, Via Morego 30, 16163 Genova, Italy

^b Electron Microscopy Laboratory, Nanochemistry, Istituto Italiano di Tecnologia, Via Morego 30, 16163 Genova, Italy

Supporting Information

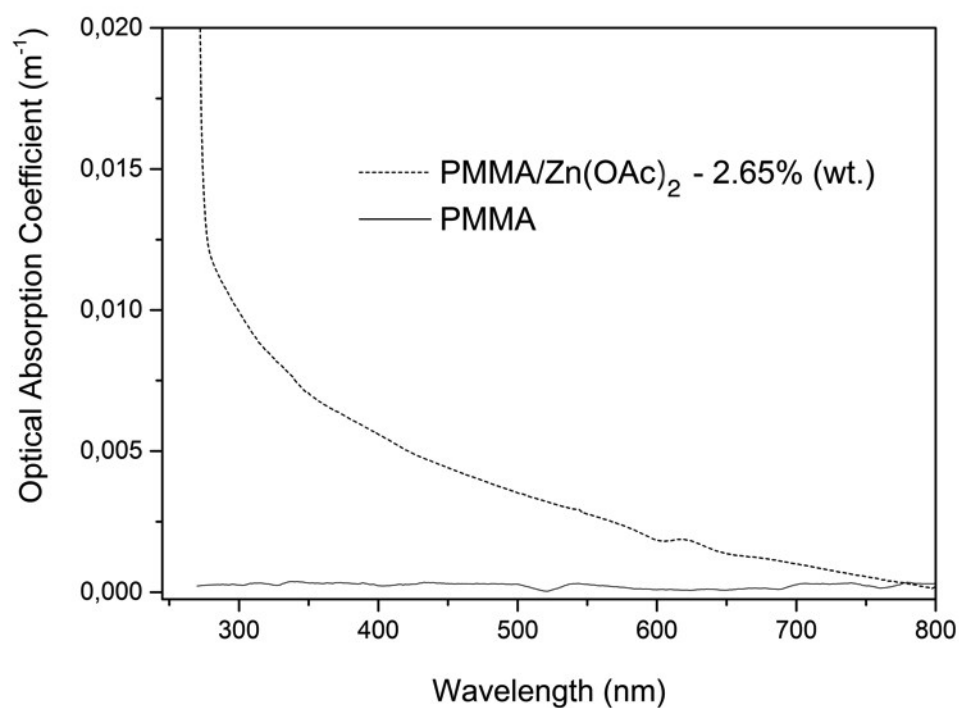


Figure S1 UV-visible absorption spectra of neat PMMA film and PMMA/Zn(OAc)₂ film before the irradiation.

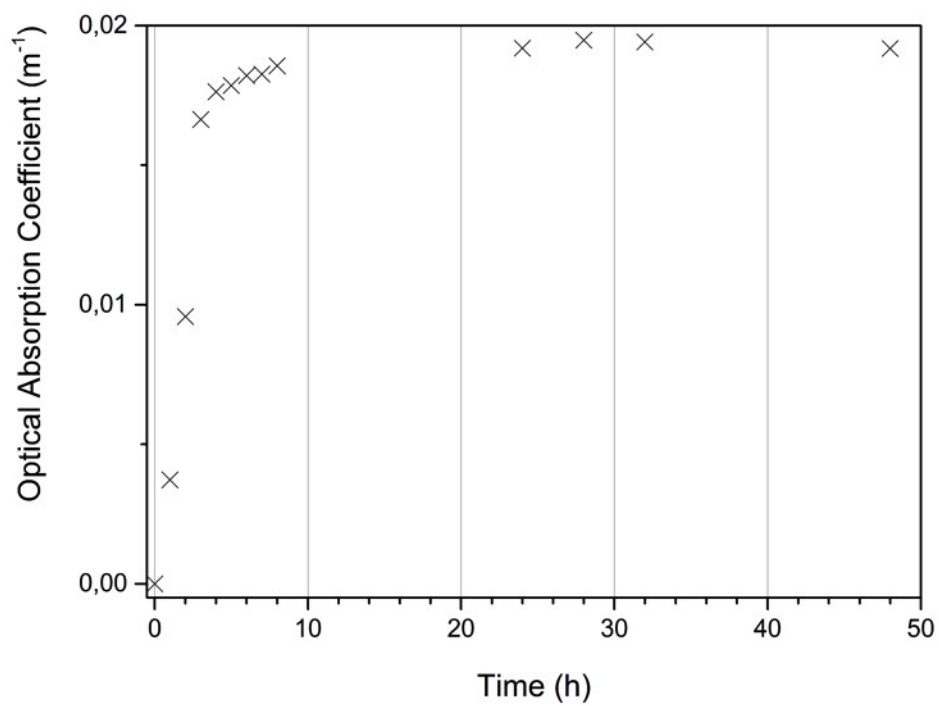


Figure S2 Kinetics of ZnO nanoparticles synthesis by thermal activation at 110°C and as a function of the time.

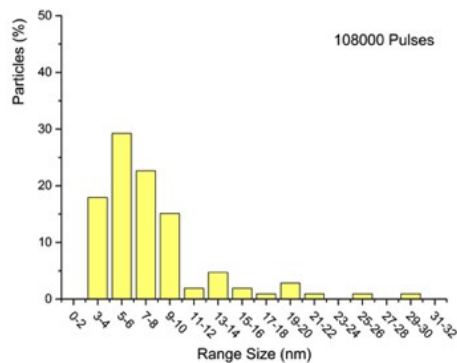
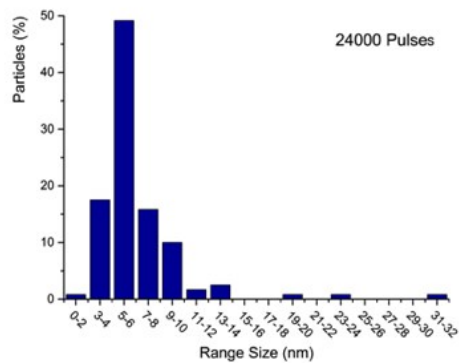
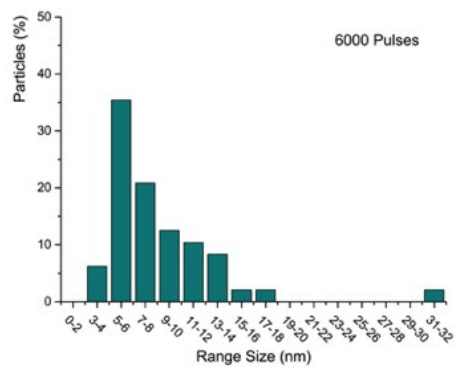
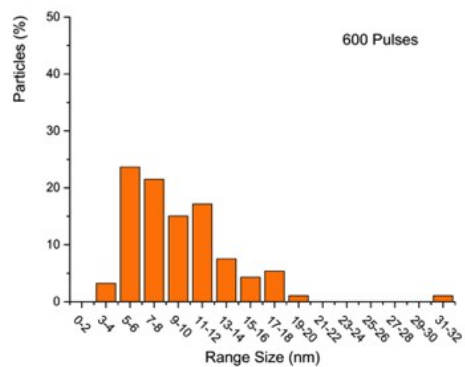


Figure S3 Particles size distributions, for samples irradiated with different number of pulses, obtained by TEM images analysis.

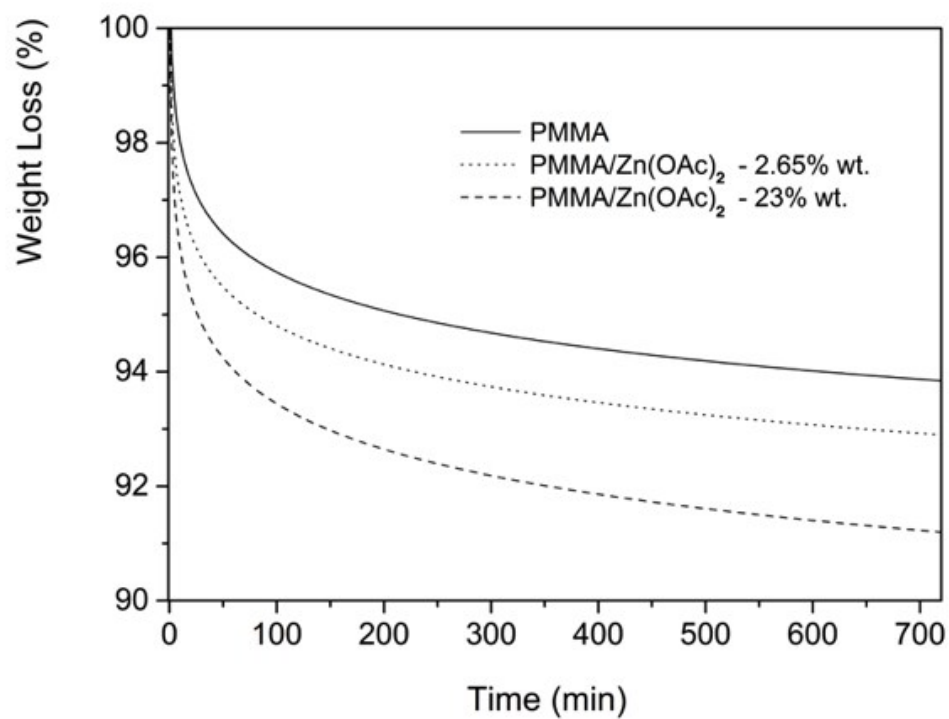


Figure S4 Thermo-gravimetric analyses of neat PMMA and PMMA/Zn(OAc)₂ with a content of 2.65 wt.% and 23 wt.%, respectively.