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Neutronographic investigation of the effects of CaLoSiL[®] and Nano Estel[®] on the water absorption properties of *Pietra d'Aspra* limestone

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Neutron radiography was applied to study the effects of two different commercially available consolidants on the water absorption properties of *Pietra d'Aspra* limestone, widely used in Italian Baroque period as building material. Our attention was mainly focused on the evaluation, by a fast and non-destructive visualization of the water motion through capillarity, of the effectiveness of such protective layers as consolidating agents in the view of preserving and maintaining both old and modern structures. Significant differences in the water suction behavior have been highlighted, providing useful information on the coating/substrate interaction mechanisms, which regulate the fluid mobility inside the treated limestone [1].

References

[1] Randazzo, L.; Paladini, G.; Venuti, V.; Crupi, V.; Ott, F.; Montana, G.; Ricca, M.; Rovella, N.; La Russa, M.F.; Majolino, D. Pore Structure and Water Transfer in *Pietra d'Aspra* Limestone: A Neutronographic Study. *Appl. Sci.* **2020**, *10*, 6745. https://doi.org/10.3390/app10196745