

**Research Article:**

**INVESTIGAREA EXPERIMENTALĂ A  
PĂTRUNDERII UNOR PRODUSE DE  
CONSOLIDARE ÎN LEMN  
PARTEA a 2-a: SPECTROSCOPIE FTIR**

**AN INVESTIGATION OF CONSOLIDANTS  
PENETRATION IN WOOD  
PART 2: FTIR SPECTROSCOPY**

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**BIBLIOGRAFIE / REFERENCES**

- CHADEFAUX, C., VIGNAUD, C., MENU, M., REICHE, I. (2008). Effects and efficiency of consolidation treatments on Palaeolithic reindeer antler. Multi-analytical study by means of XRD, FT-IR microspectroscopy, SEM, TEM and  $\mu$ -PIXE/PIGE analyses, Appl. Phys. A 92, 171–177
- CRISCI, G.M., LA RUSSA, M.F., MALAGODI, M., RUFFOLO, S.A. (2010). Consolidating properties of Regalrez 1126 and Paraloid B72 applied to wood, Journal of Cultural Heritage 11: 304–308.
- DERRICK M.; STULIK D.; LANDRY J. (1999). Infrared Spectroscopy in Conservation Science, The Getty Conservation Institute, Los Angeles
- EMANDI, A., BUDRUGEAC, P., EMANDI, I., STANCULESCU, I., BUGHEANU, P. (2010). The assesment of the decayed lime wood polymeric components by tg and ft-ir parameters correlation, International Journal of Conservation Science, Volume 1, Issue 4: 211-218, [www.ijcs.uaic.ro](http://www.ijcs.uaic.ro).
- FAVARO, M., MENDICHI, R., OSSOLA, F., SIMON, S., TOMASIN, P., VIGATO, P.A. (2007). Evaluation of polymers for conservation treatments. Part II: Photo-oxidative and salt-induced weathering of acrylic-silicone mixtures. Polymer degradation and stability, 92: 335-351.
- POPESCU, C.M., POPESCU M.C., SINGUREL, GH., VASILE, C., ARGYROPOULOS, D., WILLFOR, S. (2007). Spectral Characterization of Eucalyptus Wood. Applied Spectroscopy, vol.11, nr.6, pg. 1168-1177.
- SANDU, I. (2008). Deteriorarea și degradarea bunurilor de patrimoniu cultural (Deterioration and Degradation of Cultural Objects), Vol. I, Vol.II, Editura Universității A.I. Cuza, Iași, ISBN 978-973-703-341-3
- TIMAR M.C., TUDUCE TRĂISTARU, A., POROJAN, M., GURĂU, L. (2010). An investigation of consolidants penetration in wood. Part 1: General methodology and microscopy. Pro Ligno, vol6., nr. 4, pg. 13-27. ISSN
- TIMAR, M.C. (2003). Restaurarea mobilei – teorie și practică (Furniture Restoration – Theory and Practice), Editura Universității Transilvania, ISBN 973-635-144-0
- TIMAR; M.C. (2003). Restaurarea mobilei – teorie și practica, Editura Universitatii Transilvania, ISBN 973-635-144-0.
- UNGER A.; SCHNIEWING A.P.; UNGER W. (2001). *Conservation of Wood Artifacts*, Berlin: Springer. [www.amazon.co.uk](http://www.amazon.co.uk)
- UNGER A.; UNGER W. (1994). Conservation of Wooden Cultural Property, Internatinal Research Group on Wood Preservation, 25<sup>th</sup> International Meeting, Bali, Indonesia, Document IRG/WP 94 – 30038
- WANG, I. & SCHNIEWIND, A.P. (1985), Consolidation of Deteriorated Wood with Soluble Resins, JAIC, vol 24 (2): 77 – 91.