

Abstract

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Examining Cement-based Materials by Laser Scanning Confocal Microscopy

• While laser scanning confocal microscopy (LSCM) is widely used in a variety of fields, LSCM has not been broadly applied for the characterization of cement-based materials, despite the potential advantages of this technique. It is believed that the use of confocal microscopy for characterizing cement-based materials would be expanded by the further development of sample preparation and examination protocols. Three imaging methodologies: (1) "through-aggregate" examination, (2) wet-chemistry studies, and (3) surface characterization and their potential applications to cement-based materials are described.