

Peer-reviewed publications

- Margherita Martini, Pierre Francus, Laurenz Schröer, Florian Buyse, **Pierre Kibleur**, Veerle Cnudde, Leonardo Di Schiavi Trotta, Philippe Després. Characterization of geological samples with dual-energy XCT: a comparison of three different scanners, *Geostandards and Geoanalytical Research*, in review.
- Noemi De Roo, **Pierre Kibleur**, Liesbeth Temmerman, Ronald Verbeeck, Matthieu Boone, Guy De Pauw. The effect of cryopreservation on enamel microcracks – a μ CT analysis using a deep learning algorithm, *Cryobiology*, in review.
- Jan Van den Bulcke, Louis Verschuren, Ruben De Blaere, Simon Vansuyt, Maxime Dekegeleer, **Pierre Kibleur**, Olivier Pieters, Tom De Mil, Wannes Hubau, Hans Beeckman, Joris Van Acker, Francis wyffels. An automated high-throughput pipeline for high-resolution analysis of wood anatomy on stem disk and increment core surfaces, *Plant Methods*, 2025.
- Szabolcs Korsós, **Pierre Kibleur**, Ivan Josipovic, Matthieu Boone, Lieven Vlaminck. Manual versus reciprocating endodontic debridement of equine cheek teeth: micro-computed tomography findings, *Equine Veterinary Journal*, 2025.
- Sophie Debaenst, Tamara Jarayseh, Hanna De Saffel, Jan Willem Bek, Matthieu Boone, Ivan Josipovic, **Pierre Kibleur**, Ronald Y. Kwon, Paul Coucke, and Andy Willaert. Crispant analysis in zebrafish as a tool for rapid functional screening of disease-causing genes for bone fragility, *eLife*, 2025.
- Caori Organista, Ruizhi Tang, Zhitian Shi, Konstantins Jefimovs, Daniel Josell, Lucia Romano, Simon Spindler, **Pierre Kibleur**, Benjamin Blykers, Marco Stampanoni, and Matthieu N. Boone. Implementation of a dual-phase grating interferometer for multi-scale characterization of building materials by tunable dark-field imaging, *Scientific Reports*, 2024.
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- **Pierre Kibleur**, Benjamin Blykers, Matthieu N. Boone, Luc Van Hoorebeke, Joris Van Acker, and Jan Van den Bulcke. Detecting thin adhesive coatings in wood fiber materials with laboratory-based Dual-Energy Computed Tomography (DECT), *Scientific Reports*, 2022.
- **Pierre Kibleur**, Zaira Manigrasso, Wannes Goethals, Jan Aelterman, Matthieu N. Boone, Joris Van Acker, and Jan Van den Bulcke. Microscopic deformations in MDF swelling: a unique 4D-CT characterization, *Materials and Structures*, 2022.
- **Pierre Kibleur**, Jan Aelterman, Matthieu N. Boone, Jan Van den Bulcke, and Joris Van Acker. Deep learning segmentation of wood fiber bundles in fiberboards, *Composites Science and Technology*, 2022.
- Haichao Li, Jan Van den Bulcke, **Pierre Kibleur**, Orly Mendoza, Stefaan De Neve, and Steven Sleutel. Soil textural control on moisture distribution at the microscale and effect on organic matter mineralization, *Soil Biology and Chemistry*, 2022.
- Wanzhao Li, Zheng Zhang, Changtong Mei, **Pierre Kibleur**, Joris Van Acker, and Jan Van den Bulcke. Understanding the mechanical strength and dynamic structural changes of wood-based products using X-ray computed tomography, *Wood Material Science & Engineering*, 2022.
- Yuriy Sinchuk, **Pierre Kibleur**, Jan Aelterman, Matthieu N. Boone, and Wim Van Paepegem. Geometrical and deep learning approaches for instance segmentation of CFRP fiber bundles in textile composites, *Composite Structures*, 2021.
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- Gerrit Ralf Surup, Henrik Kofoed Nielsen, Marius Großarth, Rüdiger Deike, Jan Van den Bulcke, **Pierre Kibleur**, Michael Müller, Mirko Ziegner, Elena Yazhenskikh, Sergey Beloshapkin, James J. Leahy, and Anna Trubetskaya. Effect of operating conditions and feedstock composition on the properties of manganese oxide or quartz charcoal pellets for the use in ferroalloy industries, *Energy*, 2020.
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