

Data of Supervisors of the Doctoral School at WPUT

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Scientific Discipline(s):	Chemical Engineering
Research Areas (max. 2000 characters):	Synthesis of photoreactive acrylate and vinyl resins with heteroatoms (Si, P, Br, F) for applications in adhesive materials and VAT photopolymerisation (3D-SLA); Characterisation of the photopolymerisation and phototelomerisation processes for (meth)acrylic, vinyl monomers and the photocrosslinking of acrylate, vinyl and epoxy polymers; chemical and physical modification of adhesive and coating binders; formulation and optimisation of photo-crosslinkable adhesives, thermosetting adhesives (e.g. for the aviation industry), including those with increased thermal and mechanical resistance and high adhesion to various surfaces (steel, Al, Cu, glass), including critical surfaces (PE, PP). Preparation and characterisation of biocidal and anticorrosive varnishes. Preparation and characterisation of medical patches with natural substances and dressing hydrogels based on photocrosslinkable synthetic monomers.
Keywords (max. 10):	Photoreactive resins, acrylates, epoxyacrylates, pressure-sensitive adhesives, structural adhesives, phototelomerisation, VAT photopolymerisation, biocidal coatings, hydrogels.