

**Abstract 3<sup>rd</sup> International Conference on Cellulose Fibres**

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**The Versatility of the HighPerCell<sup>®</sup> technology for Cellulose Filament Production**

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The processing of cellulose using ionic liquids as solvents is a promising and environmentally friendly technology that is from high industrial interest.<sup>[1]</sup> The processing of endless filament applying different cellulosic sources (e.g. paper grade pulp, dissolving pulp, cotton, bast fibers, lignocellulosic waste, marine waste) by use of the HighPerCell<sup>®</sup> process (*HighPerformanceCelluloseFibers*) enables wide textile and technical applications.<sup>[2,3]</sup> Filament properties can be tuned in terms of fineness, filament count and of course mechanical properties easily. The process itself is a three-component system only using cellulose, ionic liquid and water. There are no further additives needed for the spinning process, low processing temperature are realized and a nearly complete recycling of the solvent is secured.

These filaments can be processed easily along textile value chain: from spinning dope into filament and from filament directly into fabrics (e.g. knitted or woven, texturized or flat, twisted or un-twisted). The materials have shiny and smooth surface and finishing steps such as dyeing can be successfully addressed on the filament and fabrics.

**References:**

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