ABSTRACT

A coating slurry, a coated separator, a preparation method of the coated separator, and a battery including the coated separator are provided. The coating slurry includes: a solvent, an adhesive polymer resin, and a photoinitiator, where a weight proportion of the photoinitiator in the coating slurry is 0.08 wt% to 1.0 wt%; and the adhesive polymer resin includes one or a combination of two or more of a polyvinylidene fluoride (PVDF)-based adhesive polymer resin, a polyimide (PI), a polyetherimide (PEI), and polymethylmethacrylate (PMMA). When the weight proportion of the photoinitiator in the coating slurry is controlled at 0.08 wt% to 1.0 wt%, the photoinitiator can well penetrate into separator substrate layers after the coating slurry is coated on a membrane to ensure that enough reactive free radicals are produced by the photoinitiator in the membrane, a ceramic layer, and a combined interface layer.

[FIG. 4]