

The spray technique is used to realize the n+ emitter from phosphoric acid H<sub>3</sub>PO<sub>4</sub> as a doping source. Emulsions have been prepared using several organic solvents. It was found that H<sub>3</sub>PO<sub>4</sub>:2-butanol mixture provides the most uniform deposited layer. The sheet resistance and the n+ profile were measured with a four point probe and the Hall profiling, respectively. The variety of emitters obtained are characterized by a sheet resistance ranging from 10 to 86 Ω/□ and a junction depth of about 0.2 to 0.7 μm which can be adequate for emitters in a polycrystalline silicon solar cell process