IONIC LIQUID SCREENING KITS



DSSC-Kit



The Development of <u>dye sensitized solar cells</u> (DSSCs or Grätzel-cells) is related to the development of ionic liquids since the mid of the 1990s. Based on the fact that ionic liquids

- have no significant vapor pressure,
- conduct electricity,
- are electrochemically and thermally stable,

they are in general interesting electrolytes for the transport of currents in electrochemical cells and are suitable for the use in DSSCs, in particular.

Our DSSC-kit contains those ionic liquids, which are known to be most suitable for this application. It contains predominantly ionic liquids based on the iodide-Anion, which is compatible to the I^-/I_3^- redox-shuttle and widely used in DSSCs. In addition, three good conducting, low viscous, and electrochemically stable ionic liquids are also included, which may be combined with iodide-based ionic liquids to enhance the overall conductivity:

- 1-Methyl-3-propylimidazolium iodide, IL-0025-HP
- 1-Butyl-3-methylimidazolium iodide, IL-0051-HP
- 1-Hexyl-3-methylimidazolium iodide, IL-0026-HP
- 1,3-Dimethylimidazolium iodide, IL-0299-HP
- 1,2-Dimethyl-3-propylimidazolium iodide, IL-0049-HP
- 1-Allyl-3-methylimidazolium iodide, IL-0231-HP
- N-Propyl-N-Methylpyrrolidinium iodide, <u>IL-0161-HP</u>
- 1-Ethyl-3-methylimidazolium thiocyanate, IL-0007-HP
- 1-Ethyl-3-methylimidazolium dicyanamide, <u>IL-0003-HP</u>
- 1-Ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide, IL-0023-HP

If other ionic liquids are desired, please have also a look at "myKit".