

# Characterisation of Liquid Toners Using a New Dynamic Method

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## Abstract

The electrical characterisation of liquid toners is of crucial importance for the further development of better materials for high performance printing. Parameters of interest are e.g. the charge and mobility of particles, since these determine the speed and the quality of the printing process. Several carrier fluids are known, mainly based on hydrocarbons, a wide range of polymers is used, and the role of surfactants as charge directors and charge control agents has become quite clear in the last few years.

In this paper, a new dynamic method to determine the mobility and the charge-to-mass-ratio of toners is presented using a combination of time-resolved current and mass detection. The advantage compared to other known methods is the separated detection of the deposited mass on

electrodes of both polarities. That enables a better analysis of wrong sign particles. Results of the investigation of toners are presented, and the influence of charge control agents is discussed.

## Biography

**Susann Reuter** received her Diplom-Ingenieur in Electronic Devices from Chemnitz Technical University in 1989. From 1989 to 1994, she worked at the Centre for Microtechnologies of this university, followed by 4 years in a microelectronic engineering company. Since 1998 she has worked at the Institute for Print and Media Technology in the Digital Printing group. Her work is primarily focused on ferroelectric printing with liquid toners.