implemented to obtain a better physical understanding of dielectric and electrical-discharge phenomena. Typical examples characterizing the electro-optic conversion functions are: Pockels effect, Kerr effect, Faraday effect, electro-gyration effect, magnetic Kerr effect, opt-magnetic effect, optical anisotropy of liquid and so on. As each effect has independently applied to some engineering fields, many useful effects will be systematically reviewed and discussed in this committee.

Evaluation Methods of High Reliability Insulation Technology for Electronic Equipment

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Electric equipment is becoming small in size, light in wieght, and high in performance. The printed wiring boards for the equipment are designed in fine and high density, which results in small distance and high electric field strength between the foil conductors on the board. The insulating failures may occur on the board under such conditions. Therefor, an insulating reliability comes up to an important problem for the design of electronic equipment and systems.

From these viewpoints, the investigation committee started in April 1996. The main subjects of the committee are as follows:

(1) Survey on test methods for insulating failures due to the ionic migration.
(2) Comparison of factors affecting insulating failures with results from life tests.
(3) Assessment of the standard test method of insulating reliability.
(4) Research for cause of the insulation failure in electronic equipment and systems.

We have held 9 committee meetings and 2 organizer meetings since the start of this committee. Now, we are carrying out the round robin tests of the ionic migration to investigate the subjects (2) and (3) listed above.

Interfacial Electronic and Intellectual Properties of 0rganic Thin Films

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This committee was established in January 1997 to investigate the interfacial electronic phenomena and intellectual properties of organic thin films. Since then, the study meeting was held 3 times until July of this year. The main investigation subjects of this committee are as follows:

l) Trends and topics on the nano-interfacial phenomena in highly-ordered organic thin films and super-structured organic films.
2) Electrical and optical properties of organic films arising from the nano-interfacial property of organic films.
3) Topics and trends on the intellectual property of organic films.
4) Others.

Inverter Surge Insulation

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K. Mori (Toshiba Corporation)
K. Haga (Fuji Electric Corporated Research & Development, Ltd.)
K. Ishii (National Defence Academy)