Development of Thermally Processable Electrically Conducting Polymer Professor Tatsuhiro Takahashi

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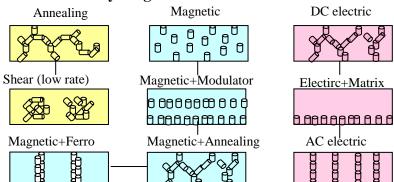
Raw Material No melting No solubility



Flexible Highly electrically

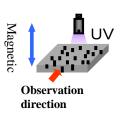
Highly electrically conductive having capability of lighting

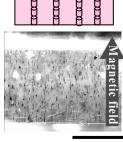
Precise Alignment Control of MWCNT by Magnetic or Electric Field





Transparent Conductive Film





50μm

Content:

Electrically conductive polymers having high conductivity close to that of metals have been utilized in the field of organic electronics. However, the application has been limited due to the lack of thermal processability, caused by rigid molecular structure. To solve this point by functionalized hybrid method, systematic research to establish fundamentals of thermally processable conducting polymer and its application have been carried out (see above).

In addition, polymer functionalization through hybrid has been performed from precise control of nano-fillers. Fundamental research to exceed conventional composite technology and its application have been challenged from precise controls of (1) dispersion, (2) alignment, (3) boundary, and (4) length (see below).

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Research Interest: Polymer Materials

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