

March 22, 2006

Mitsui Chemicals, Inc.
Idemitsu Kosan Co.,Ltd.

**Commencement of Supply of World-Class, High-Performance Red
OLED Materials**
**~Tangible Result achieved through the Collaboration Between Mitsui
Chemicals and Idemitsu Kosan~**

Mitsui Chemicals, Inc. (MCI) and Idemitsu Kosan Co.,Ltd. (Idemitsu) today announced that they have decided to begin supplying samples of world-class, high-performance red light-emitting materials. This is a tangible result of ongoing collaboration in the development of OLED (Organic Light Emitting Diode) materials by the two companies based on a February 13 agreement concerning the establishment of a business alliance in R&D and manufacturing in this field.

1. Outline of High-Performance, Red Light-Emitting Material

(1) MCI and Idemitsu have succeeded in red light-emitting materials with efficiency and a service life that are at least the equal of phosphorescent material. Furthermore, the materials represent a dramatic advance technology compared with conventional fluorescent materials. This achievement was made by combining MCI's fluorescent red dopant and Idemitsu's fluorescent red host.

(2) Specifications of High-Performance Red Light-Emitting Materials

Luminous efficiency^{*1}: 11cd/A (approx. 3.4 times more than existing Idemitsu materials)

Luminescence half-life^{*2}: 160,000 hours

(Initial luminescence 1,000 cd/m^{2*3}, approx. 32 times more than existing Idemitsu materials)

*1 Refers to the luminance per unit of electrical energy

*2 The time taken for luminance to fall to half of initial luminescence (unit: cd/A)

*3 The unit for measuring display brightness (the brightness of a notebook PC display is around 100cd/m²)

Performance Comparison for Red Light-Emitting Materials

	Newly Developed High-Performance Red Light-Emitting Material	Existing Idemitsu Material	Existing Phosphorescent Material (UDC)
Type	Fluorescent	Fluorescent	Phosphorescent
Luminous efficiency	11cd/A	3.2cd/A	12cd/A
Luminescence half-life (Initial luminescence 1,000 cd/m ²)	160,000 hours ¹	5,000 hours ¹	35,000 hours ²

Note 1: Calculated based on actual measured life

Note 2: UDC announcement: Calculated based on SID2005 life

UDC: Universal Display Corporation SID: Society For Information Display

2. Background to the Development of the High-Performance Red Light-Emitting Materials

(1) Idemitsu manufactures and sells fluorescent blue and green light-emitting materials boasting world-class levels of longevity and electrical efficiency.

(2) However, Idemitsu did not have a promising red light-emitting material of the fluorescent type. Furthermore, there was no such material available on the market. As a result, organic EL material of the phosphorescent type has become the primary red light-emitting material.

3. Benefits of Developing High-Performance Red Light-Emitting Materials

(1) At present, a triple-pattern process, involving the use of red, blue and green light-emitting materials, is widely used in the manufacture of organic EL displays.

(2) It is common practice to use blue and green fluorescent materials as well as red phosphorescent materials when using this method. The main reason for the use of this type of red material is because red fluorescent

materials have been inferior in terms of luminous efficiency, life and other characteristics.

(3) The development of the new materials will facilitate performance that outstrips existing displays by combining three colors that all use a fluorescent-type material.

(4) The use of the same type of material for all three colors will also make manufacturing easier by simplifying the molecular structure. For example, in addition to materials in the light-emitting layers, it is possible to use the same type of materials (fluorescent) for the three colors as peripheral materials, too. This permits using fluorescent materials for all materials used.

4. Schedule

(1) Sample shipments will begin in May 2006. (Marketing will be conducted by Idemitsu.)

*Idemitsu today announced that it has acquired elemental patents for high-performance dopants from Avago Technologies, Pte. and the University of Texas, enabling it to sell the materials on a global basis.

(2) Both MCI and Idemitsu plan to further strengthen their collaboration in development works in areas in addition to red light-emitting materials with the aim of commercializing a series of new products and technologies.

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