

Organic Molecules
for the Future
v5.5

Nov., 2013
SFC Co., Ltd.



OVERVIEW

Philosophy :

We do our best to be on the right side of cutting edge technology by endeavoring our expertise, believing in our ideals of “value creation” and continue pioneering the challenges for making human society a better world than today.



“The CHAMELEON”

Enjoying challenges

- Satisfying customers through innovation
- Striving challenges and breaking barriers
- Making a reliable and eco-friendly company

SFC is a technology-oriented fine chemicals company pursuing R&D and production of quality materials for electronic applications. The outstanding R&D capabilities coupled with human resources, facilities, knowhow, and close partnerships with market creators placed SFC as one of the leading players in OLED materials industry.

SFC has been a pioneer in key OLED materials for more than a decade in Korea - the most viable marketplace in the world. SFC has been captivating the customers by the outstanding performance backed with proprietary expertise and seamless interaction with the customers.

Currently the R&D focus is on emitting materials targeted in lighting as well as display applications. Its flexible culture and customer-tuned mindset give a strong synergy for keeping the unparalleled competitive edge and will contribute to achieving the philosophy.

Company name	SFC Co., Ltd.
Established	July 01, 1998
Key business	Fine chemicals for electronic uses
Location	Factory I 641-5 Gang-ni, Ochang-eup, Cheongwon-gun, Chungbuk, Korea Headquarters R&D Center Factory II 653-9 Gang-ni, Ochang-eup, Cheongwon-gun, Chungbuk Giheung R&D center Rm. 2901, Heungdeuk U-Tower, 1029 Youngdeuk-dong, Giheung-gu, Yongin-city, Gyeonggi
URL	www.sfc-dye.com

HISTORY

1998 Sun Fine Chem., Inc. established in Sihwa, Gyeonggi-do, Korea

2001 Moved to Ochang Techno Village in Chungbuk

Initiation of R&D for OLED materials

2002 Mass production of OLED materials

2003 Commercialization of OLED materials

2004 R&D on IR Dyes for PDP filter

2005 R&D on white emitting material

ISO 9001:2000 & ISO14001 Certified

Development of world-class blue EMMs

2006 Company name changed to SFC Co., Ltd.

New CI, "The CHAMELEON" announced

Development of CGM and CTM for OPC

Development of red host PH01 & blue dopants BD0xx

2007 Development of world-class ph. dopants RP series

Start to develop solution process-able materials

2008 Development of world-class blue & orange EMMs

Strategic business agreement with UDC

2010 Partnered with Hodogaya Chemical Co., Ltd.

Development of world-class fluorescent green

2011 Established R&D center in Ochang Foreign

Investment Zone and Giheung, Gyeonggi-do

2013 Opened the 2nd factory in Ochang Foreign

Investment Zone



(a) The 1st product (1999); (b) Ground-breaking (2001)
(c) The 1st blue host SH1 and (d) dopant SD1 (2005)



(a) Headquarters / R&D center
(b) Giheung R&D center
(c) Factory I (d) Factory II

QUALITY & ENVIRONMENT MANAGEMENT

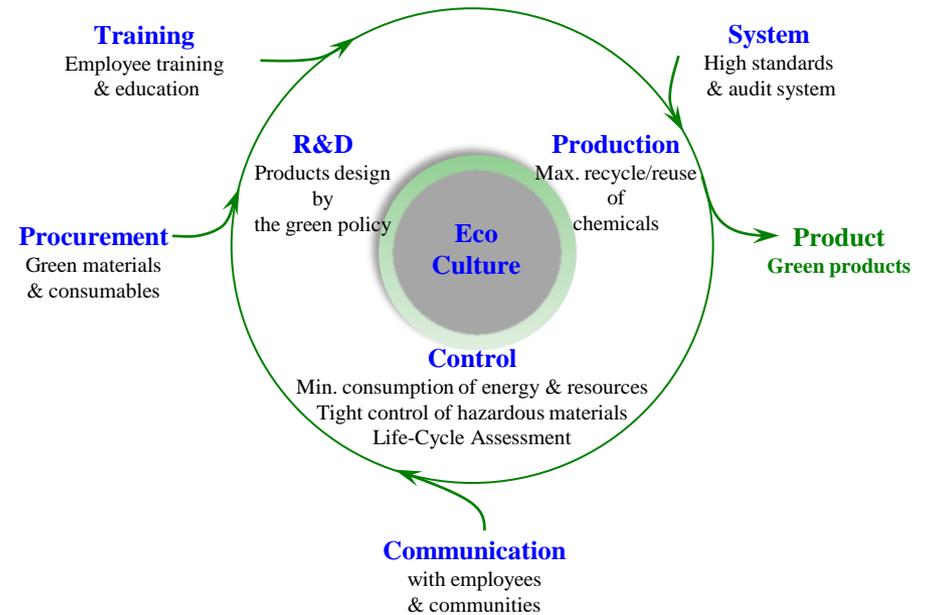
SFC believes that quality & environmental friendliness are integral elements in corporate management.

And sets up a management policy and control system meeting the requirements of ISO9001/ISO14001. SFC will make the best effort to satisfy the customers through not only high quality but also “environmental friendliness.

1. Company’s ability to maintain quality and environment management system effectively
2. Continuous improvement of quality and environment
3. Guarantee competitive edge by minimizing the disposal of environmentally hazardous substances
4. Realization of reliable and eco-friendly quality
5. Conform to and follow the laws and regulations
6. Transparent management

Keeping the policy in mind, all the employees agree that SFC is committed to satisfy the needs and requirements of the customers and interested parties. An assigned quality and environment management representative takes the responsibility for implementing both efficient processes and continuous improvements of the policy.

Environmental friendliness is the top priority in every step of the management. SFC believes that healthy environment and nature are the stage of life of our descendants, and established strict standards for controlling the company processes. Based on the standards and audit system, SFC is striving to reduce environmental burden in every step from initial R&D, production to the final disposal process.



SFC has the belief that safety & health of the employees and communities is another aspect of quality as well as basis for improving creativity and satisfaction. SFC has been devoting more and more resources to make a proactive healthier workplace. SFC will continuously strengthen its social responsibilities through the Eco-Culture Cycle.

RESEARCH & DEVELOPMENT

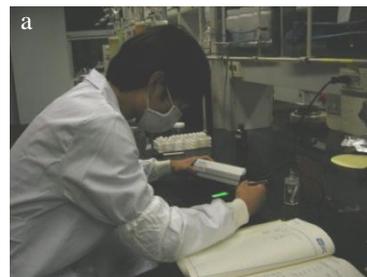
We are reinforcing R&D capability to lead the technical moves, fluorescence to phosphorescence, deposition to solution process, small to large-sized, and display to advanced display and lighting. As a materials developer, SFC has been focusing on the following research fields:

- Fluorescent and phosphorescent emitting materials
- Solution process-able small molecule emitting materials
- Device engineering and evaluation techniques

Device engineering became a substantial part of the development because of the strong dependency of the performance on each device's architecture. At SFC, a device solution team is dedicated to find the best combination of materials by factoring simulation, performance measurement, and analysis.

With the explosive evolution of display markets and the comparative advantages, OLED is believed as the next generation technology which follows LCD. OLED has already been widely adopted by high-end users in small and medium sectors, and will soon penetrate the larger-sized display markets requiring an ultimate viewing angle and instant response time. As a growth engine of the company, R&D people at SFC, are always communicating with customers, partners, and industries alike.

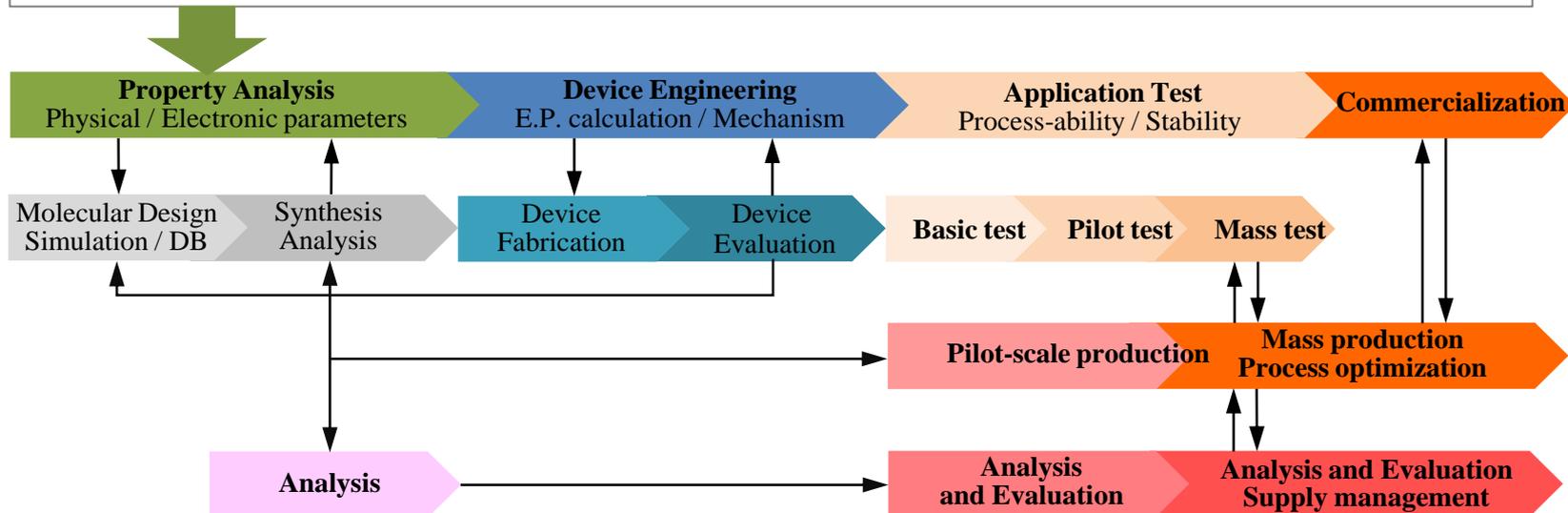
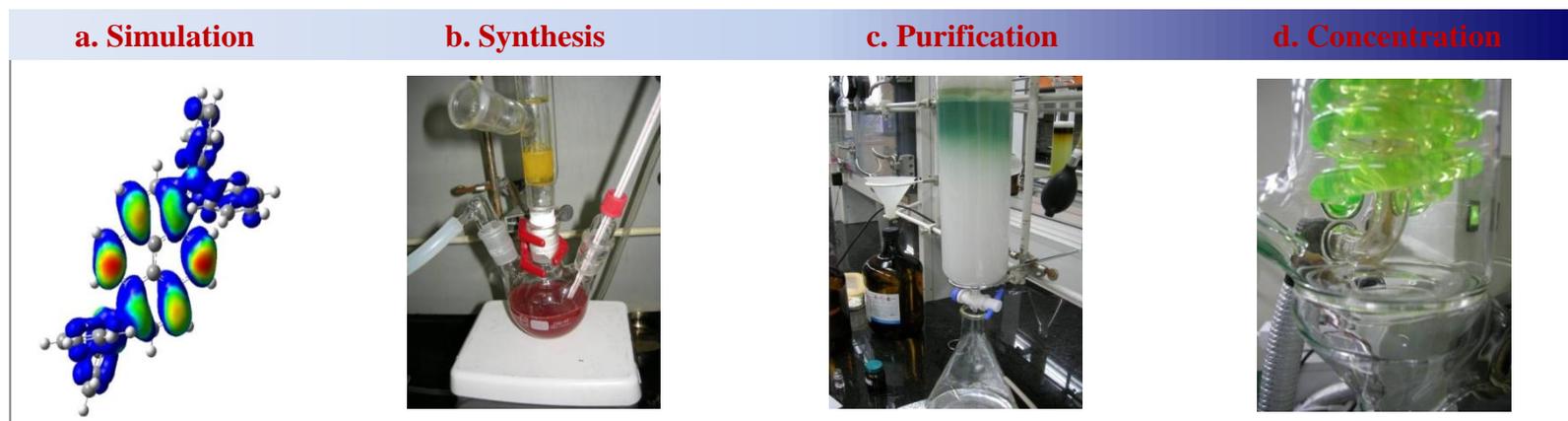
SFC has been working on key OLED materials for more than 10 years. The R&D people have the responsibility of developing de-facto standard materials requested by the lighting as well as display industry. SFC covers a full range of instrumentation and infrastructure to carry out from molecular design, synthesis, physical and chemical analyses, purification and to the final device performance evaluation.



- A chemist checking the possibility of a candidate
- A sample after sublimation
- Test glasses
- Making a test device

These facilities are being used in combination with proprietary post-processing systems and know-how, which enables SFC to be the first to deliver customer-tuned solutions to customers.

DEVELOPING A NEW PRODUCT



PRODUCTION

SFC has been operating a series of mass-scale reactors from 100L to 5,000L equipped with diversified functions and safety to handle a wide range of reactions requiring extreme conditions such as low / high temperature and pressure. Two production sites, Factory I and Factory II have a capacity of more than 2,000kg/month of synthesis and 500kg/month of purification. These close but separated production facilities offer a higher standard of reliability and stability to the customers.

By combining the long-term accumulated experience in chemical industry ranging from pharmaceutical to electronic applications and the highly competitive facilities, our production people are proving to do their best to produce “the best product with the best performance”, which makes SFC’s production a core of competitiveness.

In addition, SFC offers customized product solutions for various chemicals using the core technologies.



- a. Mass-scale synthesis needs different technologies from R&D processes
- b. Blue fluorescence from a rotary evaporator
- c. Close view of a mass-scale sublimator
- d. Sublimation units in the clean room
- e. Column separation at the plant
- f. OLED materials encapsulated in glass tubes

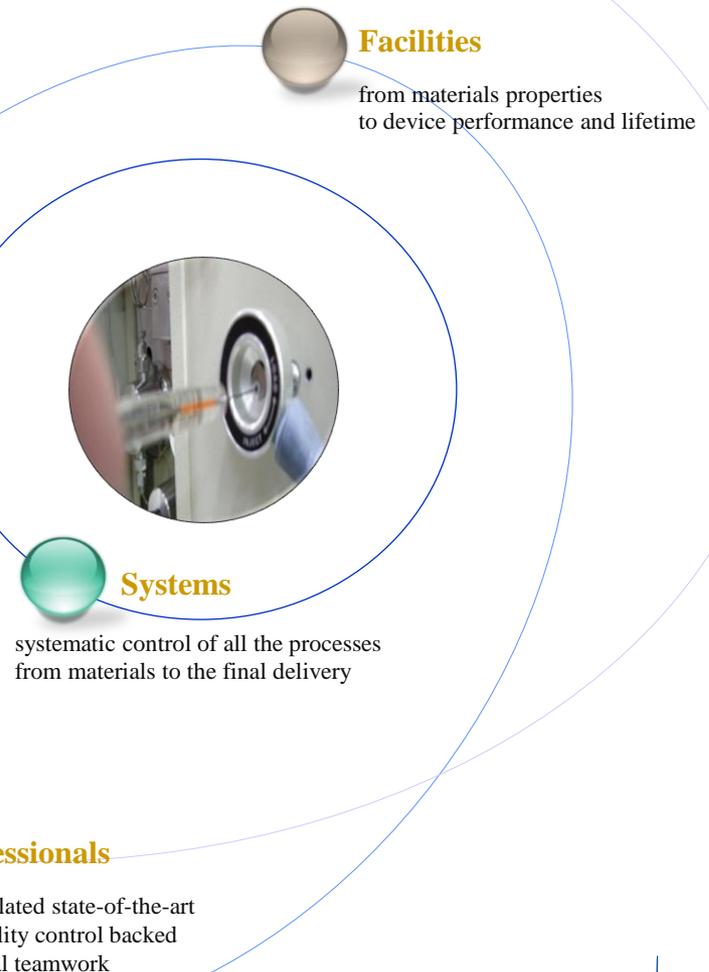
EVALUATION

“ACE” is the center for analysis, control, and evaluation.

Its mission is to ensure superb quality and solid stability simultaneously, in conjunction with R&D and production people through its in-depth understanding about the quality-related things. By having this experience in communicating with correlated functions, the results of ACE offer higher reliability, meaning more confidence of the customers about our products. It is certain that the importance of ACE becomes emphasized along with increased customers' needs as it pertains directly to the stability of the product.

ACE's responsibilities are as follows:

- Control of the quality and specifications of raw materials
- Prepare certificate of analysis of intermediates
- Monitor and control of the quality of the final products
- Test and perform evaluation to customer specifications

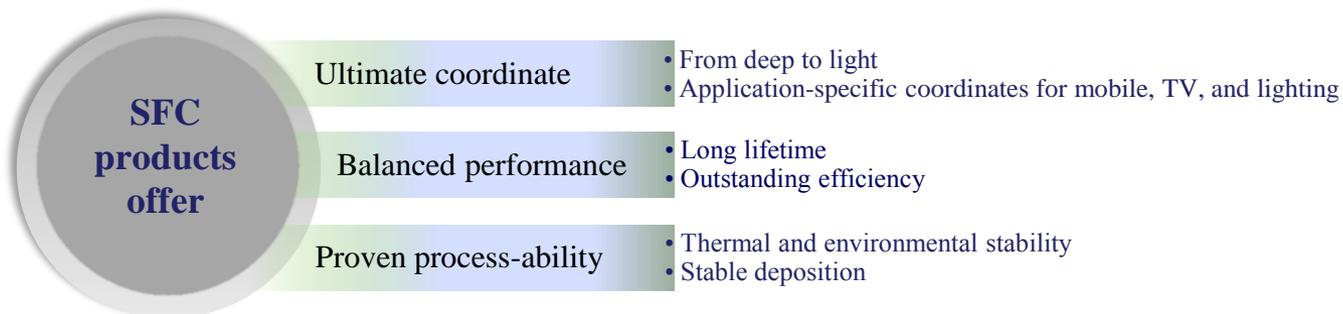
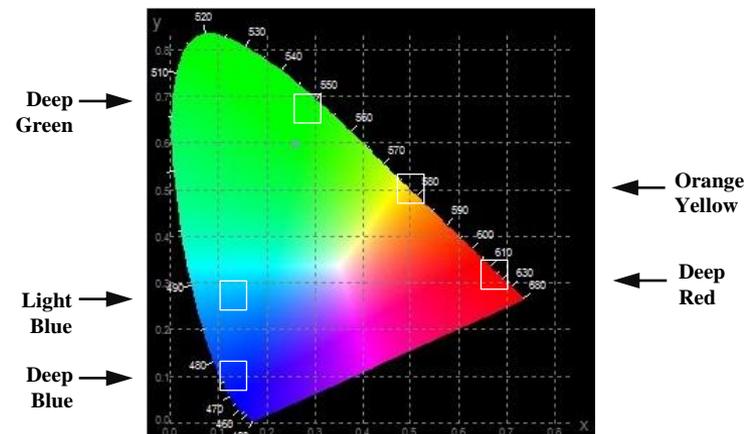


PRODUCTS PLATFORM

R&D has always been devoted to develop new materials exceeding the customers' expectations.

Currently SFC's products platform comprises a set of technology-intensive products : fluorescent blue and orange-yellow, fluorescent and phosphorescent green, phosphorescent red. Keeping up with the technological progress, this will be extended to phosphorescent blue and solution process-able materials in the near future.

These host and dopant combinations can be applied to display, lighting, and other applications depending on customers' structures and target products. SFC's commercially available products feature:



SUPPORT

“Nothing compares to customer satisfaction.”

SFC strives to satisfy the needs and to reflect the invaluable comments and advice from the customers. It's a great pleasure to share the opportunities for further improvements.

Customer support

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▶ Factory I

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▶ Giheung R&D Center

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