# We Believe that MATERIALS SCIENCE Changes the World

From aviation to cell phones to aerospace,
Indium Corporation has driven technological
innovations that continue to have significant
impacts on the way we live and enable our
customers to reach their goals.





# Pd Ag Cd 106.42 107.87 112.41 platinum gold mercury 78 79 80 Pt Au Ha



#### **DISCOVERY**

Indium is discovered by Ferdinand Reich and Hieronymus Theodor Richter at the Freiberg School of Mines, Germany.



# **DEVELOPMENT 1924-1933**

Daniel Gray, a Milliken University graduate, develops a process to extract and refine indium from ore. Meanwhile, William S. Murray investigates the use of indium as an additive to make "non-tarnishable silver" while at Oneida Community, Ltd. in Sherrill, NY.



# 1926 PATENT

The first indium electroplating processing patent is awarded to William S. Murray and Associates of Oneida Community, Ltd. By 1934, William S. Murray and Daniel Gray had developed an economical indium plating bath.

#### **IMPROVEMENT**

The United States patent office issues William S. Murray a patent for "Method and Means for Electroplating." This patent involves the use of low-voltage direct current to deposit "a plurality of different metals." William S. Murray, Daniel Gray, and Richard O. Bailey are also awarded a patent for tarnish-resisting silver and silver plating. Three more patents are issued between 1932-34 related to improvements for recovering indium and the separate recovery of zinc from ore, and the process of electrodepositing indium.



# 1934 FOUNDED

Indium Corporation (originally known as The Indium Corporation of America) is founded at 805 Watson Place, Utica, NY, USA. President William S. Murray, Vice President J. Robert Dyer, Jr., Technical Director Daniel Gray.

# 1933 COMMERCIAL APPLICATION

Williams Gold Refining Co. and William S. Murray develop the first commercial application for indium. A patent is awarded for the use of indium in gold dental alloys.





# 1938 INDIUM-TREATED BEARINGS

J. Robert Dyer, Jr. develops the process technology and plates the first indium-treated aircraft engine bearing.

# 1942 INDIUM & THE STUDEBAKER

Indium metal is plated onto 1942 Studebaker automobile bumpers. Automotive enhancements continue when, in 1953, Dr. William S. Murray is granted a patent for a motor fuel additive. The fuel additive is claimed to improve the efficiency of the motor, while reducing the deposition of carbon and the sticking of valves during combustion.

Indium Corporation is awarded the prestigious Army-Navy "E" Award for manufacturing excellence.



1942 AWARDED



# 1943 LINCOLN AVE

A manufacturing facility is established on Lincoln Avenue in Utica, NY, USA.

# 1952 SOLDER PREFORMS

Indium Corporation develops a commercially viable process for the manufacture of precision solder preforms, enabling the mass production of alloy-junction transistors.



#### PRINTED CIRCUIT BOARDS

1959

The United States patent office issues a patent for "Printing Circuits and Method of Soldering the Same." This invention offers improvements to the process of soldering to printed circuit boards.

#### WILLIAM N. MACARTNEY, JR.

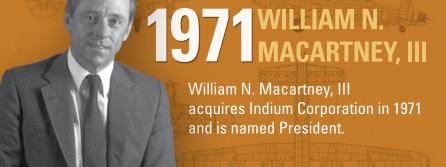
1960

William N. Macartney, Jr. acquires Indium Corporation.



#### 1960-1965 COMPOUNDS

Indium Corporation develops indium inorganic compounds, including indium oxide, indium-tin oxide, indium chloride, and indium hydroxide.



# 1977

#### **SOLDER PASTES**

Indium Corporation begins the development of solder pastes.



Indium Corporation initiates the development of manufacturing capabilities for spherical solder powder production.



## GERMANIUM & GALLIUM CORPORATIONS

Indium Corporation incorporates the Germanium Corporation of America on December 31, 1982 and Gallium Corporation of America on January 17, 1983.



# CLINTON 1985 FACILITY

Indium Corporation establishes a manufacturing facility on Robinson Road in Clinton, NY, USA. The company's first solder powder is produced.

#### 1986 DR. NING-CHENG LEE

A formal department for the research and development of solder paste is created under the direction of Dr. Ning-Cheng Lee.

#### **SPACE**

1989-1990

Indium Corporation participates in experiments aboard multiple space shuttle missions.

1990

#### **EUROPE**

Indium Corporation of Europe is founded.

The United States patent office issues a patent for "Method of Forming a Gasket of Indium and Braid." This patent describes a method of manufacturing a reinforced gasket material known as InFORMS°.

1991 InFORMS®

## 1992 Integrated® solder preforms

InTEGRATED® Solder Preforms are developed and introduced.

### **HEADQUARTERS**

Indium Corporation relocates its corporate headquarters to Robinson Road in Clinton, NY, USA.

1992

1994

Indium Corporation opens an office in Torino, Italy, to facilitate commercial indium trading.

Torino

Singapore

Indium Corporation's Asia-Pacific Operation commissioned in Singapore.

ASIA-PACIFIC

1995

INTERNET 1994 The company's first website is published at www.indium.com.



1997 GREG EVANS

Greg Evans joins the company in 1981 and is named President of Indium Corporation in 1997.



NC-SMQ92J 1998

Indium Corporation introduces NC-SMQ92J. This revolutionizes the industry, quickly becoming a world-leading solder paste.



LEADERSHIP AWARDS 1998 & 2000

Indium Corporation earns two separate Frost & Sullivan Market Engineering Customer Service Leadership Awards for developments in the solder paste and adhesive markets.



## **EUROPE** 1998

Indium Corporation of Europe relocates to Milton Keynes, U.K.



#### **GERMANIUM CORPORATION**

Germanium Corporation of America begins operations after purchasing assets from Cabot Performance Materials Corporation.

#### TAPE & REEL //

Indium Corporation establishes large-scale tape & reel solder preform packaging capabilities.





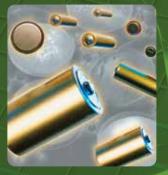
#### INNOVATION

Indium Corporation earns the Frost & Sullivan Product Innovation Award for the development of NC-SMQ230 Pb-free solder paste.

Dr. Ning-Cheng Lee is honored as an SMTA Member of Distinction. HONORED

#### **E-COMMERCE**

2002 Indium Corporation's first e-commerce order is received. The order is for indium alloy ribbon.



## 2002-2003 PERFORMANCE

The Gillette Company honors Indium Corporation with its Omnimark Award for outstanding performance in quality and service for work as a supplier to Duracell Battery.





Indium Corporation commissions PRC Operations in Suzhou.

#### **JOINT VENTURE**

2005

The Indium Corporation Liuzhou (China) joint venture contract is officially sealed at a signing ceremony held at Liuzhou City offices.

# **2006**

#### **SHENZHEN**

Indium Corporation opens a sales office in Shenzhen, PRC. In 2014, this office relocates to another facility in Shenzhen to accommodate growth and expansion.

#### **CHICAGO**

**2006** Indium Corporation's Chicago manufacturing operations is commissioned.

Suzhou Shenzhen

#### **EXPANSION**

Indium Corporation's Asia-Pacific manufacturing facility expansion project is completed.



# **BPD 2007**

Indium Corporation establishes a manufacturing facility located at 111 Business Park Drive in Utica, NY, USA. This facility serves as a hub for many of the company's key products, including alloys, preforms, and more.



AWARDS 2008 Indium8.9 Solder Paste earns the SMT Vision and SMT China Vision Awards.

# **KOREA**

2006 Operations commence at Indium Corporation's Cheongju, South Korea facility South Korea facility.

Indium Corporation acquires the processes, equipment, and know-how of Reactive NanoTechnologies, Inc. (RNT), the developer and manufacturer of NanoFoil®.

2009 NANO MATERIALS

#### **ROME**

Indium Corporation commences initial operations in Rome, NY, USA. The first process is germanium recovery.

2013



Indium Corporation earns the Global Technology award for SACm® lead-free solder alloy.

## **BiAgX**®

Indium Corporation earns the Global Technology Award for its BiAgX® solder paste technology.

# 2014 PENANG

Indium Corporation opens a new tech hub in Penang, Malaysia.

# V1000 2015

Indium Corporation earns CIRCUITS ASSEMBLY's NPI Award for its LV1000 solder preform flux coating.



## 2017 **LEADERSHIP**

Greg Evans, Indium Corporation's president since 1997, is promoted to CEO. Ross Berntson, who joined the company in 1996, is named President and COO.

PROVEN SiP soldering materials hit two billion usages in front-end module manufacturing.

#### 2018 www.indiumchina.cn

Indium Corporation launches a mobile-friendly website specifically designed for the Chinese market.

#### CERTIFICATION

Indium Corporation earns IATF-16949:2016 certificates—an international Automotive Quality Management System Standard—for its headquarters and five of its soldering manufacturing facilities.

## **2019-2020 GLOBAL GROWTH**

HQ relocates to a larger facility at 301 Woods Park Dr., Clinton, NY, USA. Additional expansion in:

- Penang, Malaysia
- Chennai, India
- Suzhou, China

- Singapore
- Clinton, NY, USA

#### 2020 www.indium.com

Indium Corporation introduces a rebranded and responsive website.

INNOVATION

Indium Corporation's innovative low-temperature high-reliability alloy technology, Durafuse™ LT, receives CIRCUITS ASSEMBLY's NPI award at APEX.



#### 2021 TEAM EXPANSION

Indium Corporation reaches a new benchmark with more than 1,000 employees globally.