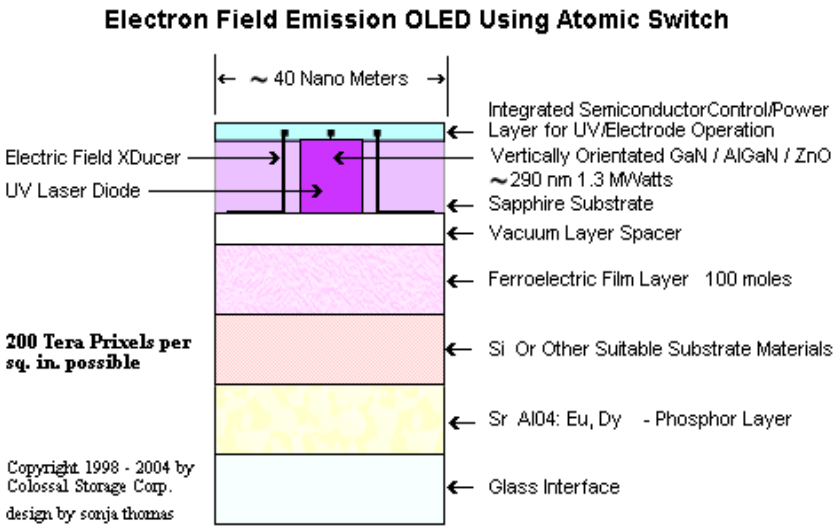
Industry Bulletin: OLED TV - the next generation of HDTV technology also relies on heavy rare earth elements

In our ongoing efforts to provide you with broader communications and industry information, we are pleased to issue another Industry Bulletin discussing recent trends in the markets of various rare and strategic metals. In this edition, we focus on the further innovations in high definition television technologies.

In our February 4th Industry Bulletin, we noted that at this year's International Consumer Electronics Show in Las Vegas, the first 108-inch LCD and the thinnest LCD TV to hit the market, were unveiled. As we are all well aware, the sales of both plasma and LCD flat screenTVs have been soaring, especially with the advent of high definition (HD) digital broadcasting. Most recently there has been a lot of excitement and advertising around the new OLED ("Organic Light Emitting Diodes") screens… one which purports greater contrast, better blacks, thinner screens, lighter weight and requiring even less energy consumption.

http://www.msnbc.msn.com/id/22399288/wid/11915829/

The good news for investors in rare earth elements is that like the current flat screen technology, OLED's also rely on heavy rare earth phosphors to generate the colours in the screen. The basic formula of rare earth aluminate long persistence phosphor is SrAlO4: Europium (Eu) and Dysprosium (Dy). By modifying its composition with different additives, the phosphor can emit a color of green, yellow, blue, white or other colors. Currently this phosphor is widely used as a pigment added into paints, rubbers and plastics for applications such as billboards, traffic signs, decorations and toys. In the illustration below, one can also see the application of the rare metal Gallium.



For readers who would like to learn more about 'How OLEDs Work', we refer you to the Craig Freudenrich's piece of the same title, on the *HowStuff Works* website:

http://electronics.howstuffworks.com/oled.htm

There are also a wide range of recently published technical papers that demonstrate how Rare Earth Elements (e.g. ytterbium, europium, yttrium and gadolinium) can be used in OLEDs but in different combinations than for LCDs. For those of our readers who are more research and science-oriented, two such papers are referred to below:

- http://www.springerlink.com/content/h12v042042578527/
  Fang-fang Wang and Bing Yan (Journal of Fluorescence 2007)

- http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TJH-3WX21BX-2&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=a515b9797a5b713ec74df107b76b2c30
  Dongxu Zhao and Wenlian Li, et al (Journal of Luminescence 1999)

The new OLED TVs are presently available in Japan but will soon be available in North America. As with many new innovations, the current price for this new technology is high, and apparently there is some concern around the screen life, but the unmatched picture quality will undoubtedly attract great consumer interest.

Avalon is well positioned to benefit from the growing demand for heavy rare earth elements from the consumer electronics industry through the development of its Thor Lake project in the Northwest Territories, which hosts one of the very few rare earth element deposits in the world to be substantially enriched in the heavy rare earths such as europium and dysprosium. A $5.0 million work program is now underway to complete a pre-feasibility study by early 2009.

If you have any comments or questions, please do not hesitate to post them on Avalon's official investor relations hub at http://www.agoracom.com/ir/Avalon.

Regards,
AGORACOM Investor Relations