## Correction to "Effect of Different Surfactants on the Size Control and Optical Properties of Y2O3:Eu3+ Nanoparticles Prepared by Coprecipitation Method"

Abhijit P. Jadhav, Chang Woo Kim, Hyun Gil Cha, Amol Uttam Pawar, Nitin Appa Jadhav, U. Pal, and Young Soo Kang\*

J. Phys. Chem. C 2009, 113 (31), 13600-13604. DOI: 10.1021/jp903067j

 $\prod$  n our above publication, the following corrections are to be made:

On page 13601, second paragraph (below eq 2), instead of "the chloride precursors were prepared by addition of 65.0 mL of HCl (37%, 1 M) with 10.24 mmol of Y<sub>2</sub>O<sub>3</sub> and 3.87 mmol of Eu<sub>2</sub>O<sub>3</sub>, respectively", the sentence should be read as "the chloride precursors were prepared by addition of 65.0 mL of 1 M HCl solution (the 1 M HCl solution was prepared using commercial HCl of 37% w/w of density 1.2 g/mL)".

On page 13601, third paragraph, the sentence "In a typical coprecipitation synthesis, 95.0 mmol of YCl<sub>3</sub>·6H<sub>2</sub>O (0.725 g) and 5.0 mmol of EuCl<sub>3</sub>·6H<sub>2</sub>O (0.05 g) were mixed in 50.0 mL of DI water and 1.0 mL of surfactant under vigorous magnetic stirring for 2 h" should be read as, "In a typical coprecipitation synthesis, we used 25 mL of water as solvent, where 0.725 g of YCl<sub>3</sub>·6H<sub>2</sub>O and 0.5 g of EuCl<sub>3</sub>·6H<sub>2</sub>O were mixed to keep their concentrations in the reaction mixture at 95.5 and 5.45 mM, respectively".

On page 13601, eqs 3 and 4 should be read as

$$2\text{YCl}_{3} \cdot 6\text{H}_{2}\text{O} + 2\text{EuCl}_{3} \cdot 6\text{H}_{2}\text{O} + 6\text{Na}_{2}\text{CO}_{3} \xrightarrow{\text{butanol, hexanol, oleic acid}} (\text{Y, Eu})_{2}$$

$$(\text{CO}_{3})_{3} \cdot 12\text{H}_{2}\text{O} + 12\text{NaCl} + 3\text{CO}_{2} + \frac{3}{2}\text{O}_{2}$$
(3)

At 800 °C calcination, formation of Y<sub>2</sub>O<sub>3</sub>:Eu<sup>3+</sup> takes place in a stepwise manner

$$(Y, Eu)_{2}(CO_{3})_{3} \cdot 12H_{2}O \xrightarrow[-12H_{2}O]{} (Y, Eu)_{2}(CO_{3})_{3}$$

$$\xrightarrow[-2CO_{2}]{} (Y, Eu)_{2}O_{2}(CO_{3}) \rightarrow (Y, Eu)_{2}O_{3} \cdot CO_{2} \xrightarrow[-CO_{2}]{} Y_{2}O_{3} : Eu^{3+}$$

$$(4)$$

On page 13601, synthesis section, second paragraph, seventh line, the sentence, "The precipitation of the complex oxalate from the solution was carried out by dropwise addition of an aqueous Na<sub>2</sub>CO<sub>3</sub> solution  $(0.3 \times 10^{-3} \text{ M})$  maintaining the final pH at 7.0" should be read as "The precipitation of the carbonate complex from the solution was carried out by dropwise addition of an aqueous Na<sub>2</sub>CO<sub>3</sub> solution  $(0.3 \times 10^{-3})$ M) maintaining the final pH at 7.0".

On page 13604, results and discussion section, third paragraph, eighth line, the sentence "The addition of Na<sub>2</sub>CO<sub>3</sub> as a precipitating agent results in the formation of the complex structure Y2C2O4:Eu2C2O4" should be read as, "The addition of Na<sub>2</sub>CO<sub>3</sub> as a precipitating agent results in the formation of the complex carbonate structure".

Published: June 13, 2014