

# Experimental investigation of thermal runaway and gas release of NMC lithium-ion pouch batteries in dependence on state of charge

Kofi Owusu Ansah Amano<sup>1, \*</sup>, Sarah-Katharina Hahn<sup>2</sup>, Rico Tschirschwitz<sup>3</sup>, Tim Rappsilber<sup>3</sup>, Ulrich Krause<sup>1</sup>

<sup>1</sup> Otto von Guericke University Magdeburg, Faculty of Process and Systems Engineering, Dept. of Plant Design and Process Safety, Universitätsplatz 2, 39106 Magdeburg, Germany; kofi.amano@ovgu.de, ulrich.krause@ovgu.de,

<sup>2</sup> German Fire Protection Association (vfdb), Wolbecker Straße 237, 48155 Münster, Germany; hahn@vfdb.de,

<sup>3</sup> Federal Institute for Materials Research and Testing (BAM), Berlin, Unter den Eichen 87, 12205 Berlin, Germany; rico.tschirschwitz@bam.de, tim.rappsilber@bam.de

\* Correspondence: kofi.amano@ovgu.de; Tel.: +49(0)3916758831

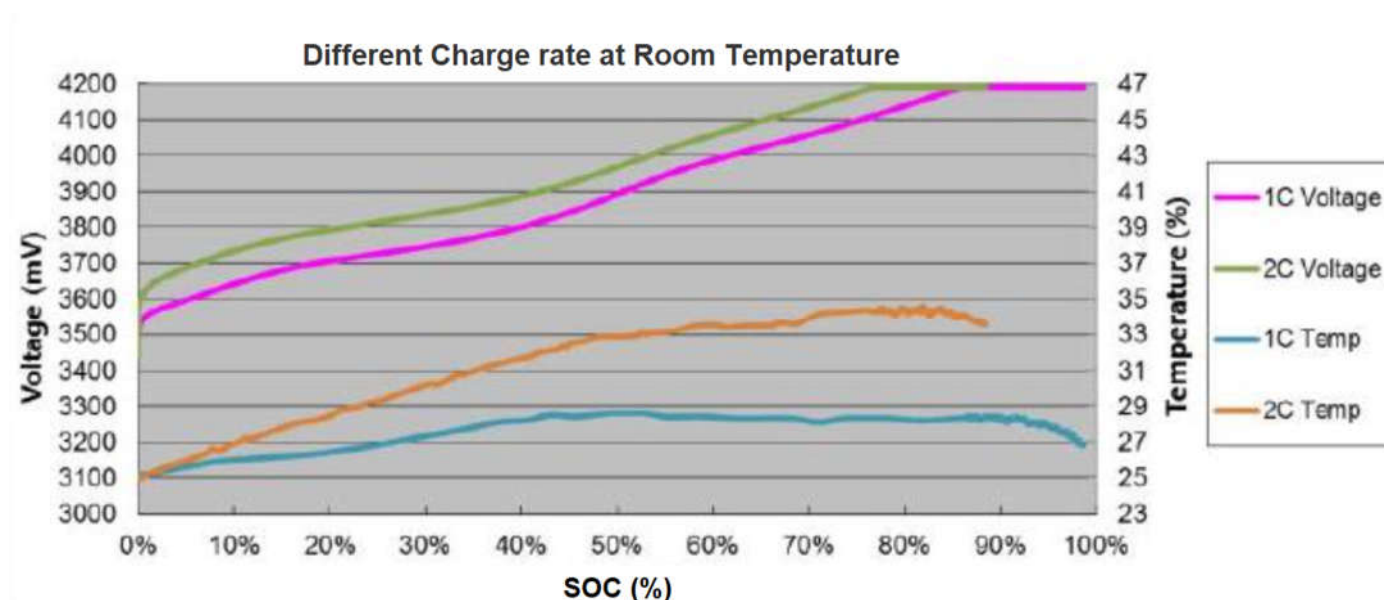


Figure S1. Charge characteristic curve of the tested cells provided by CTS.