

# Formation and Growth of Intermetallic Compounds during Reactions between Liquid Gallium and Solid Nickel

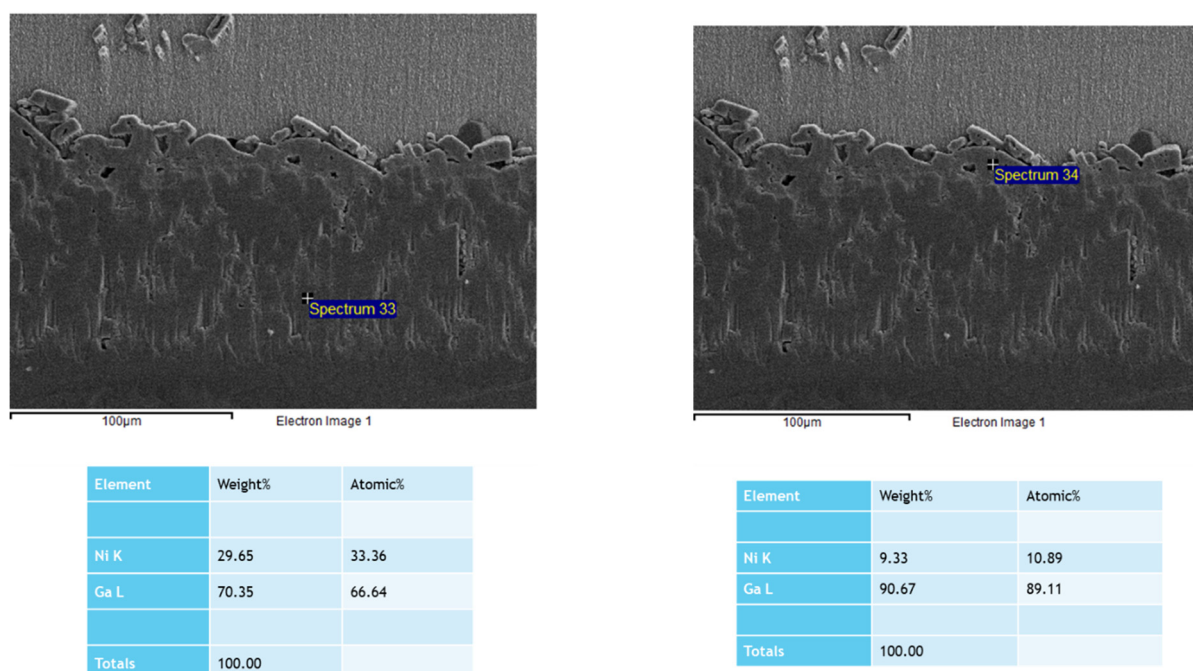
Doyoung Lee <sup>1,†</sup>, Chang-Lae Kim <sup>2,†</sup> and Yoonchul Sohn <sup>1,\*</sup>

<sup>1</sup> Department of Welding and Joining Science Engineering, Chosun University, Gwangju, 61452, South Korea; [ldy6744@naver.com](mailto:ldy6744@naver.com), [yoonchul.son@chosun.ac.kr](mailto:yoonchul.son@chosun.ac.kr)

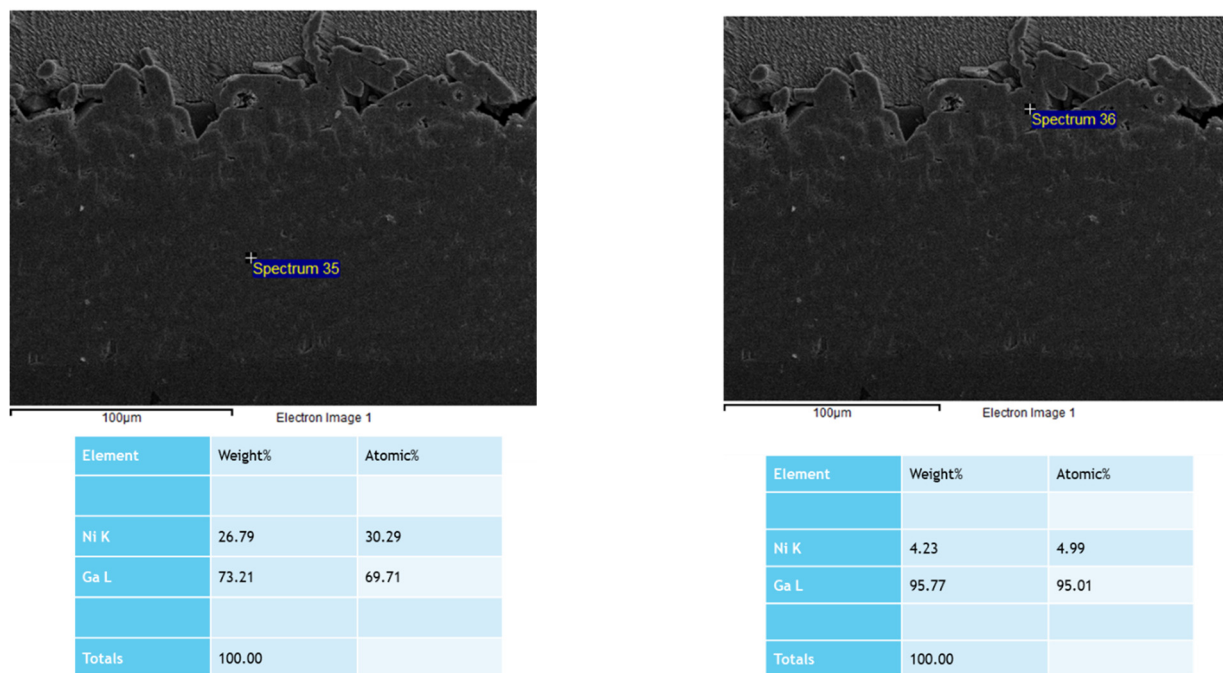
<sup>2</sup> Department of Mechanical Engineering, Chosun University, Gwangju, 61452, South Korea; [kimcl@chosun.ac.kr](mailto:kimcl@chosun.ac.kr)

† These authors contributed equally to this work.

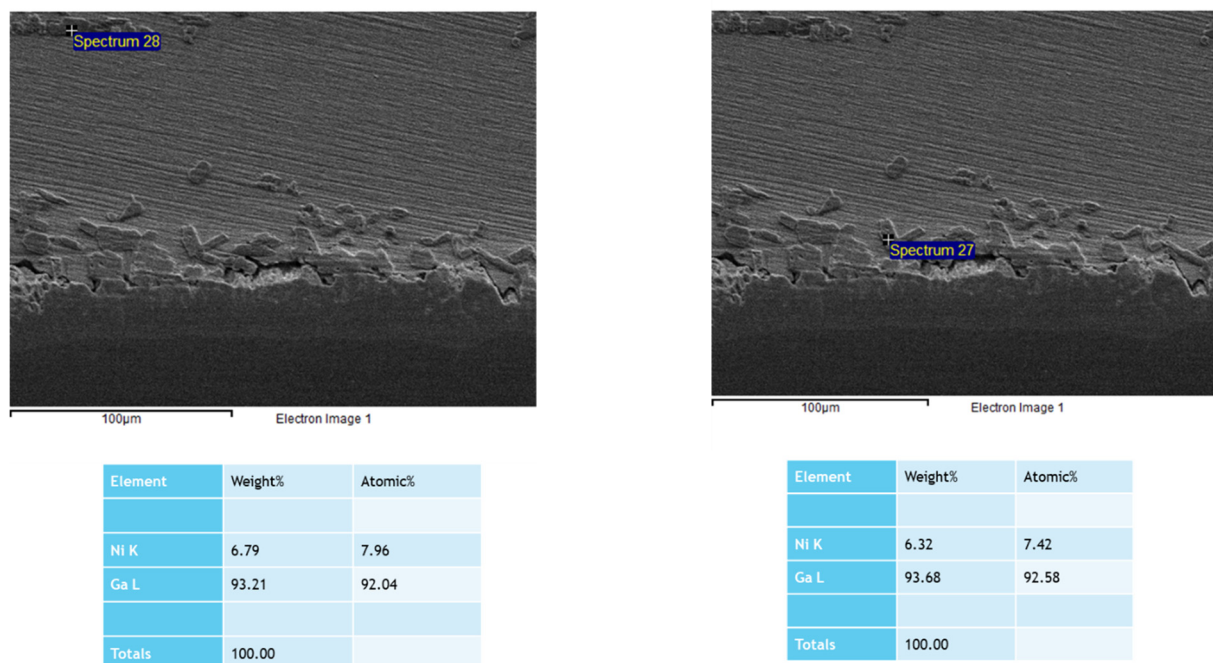
\* Correspondence: [yoonchul.son@chosun.ac.kr](mailto:yoonchul.son@chosun.ac.kr)



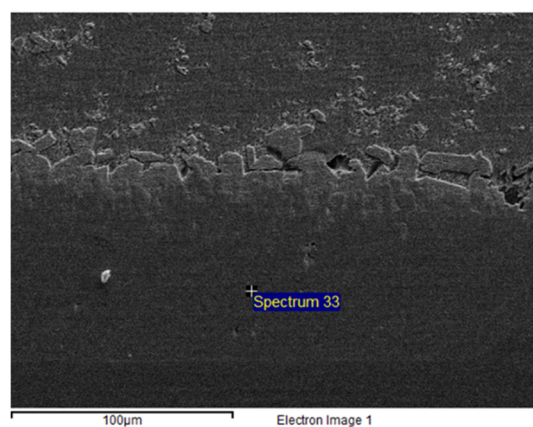
**Figure S1.** EDX analysis of the interfacial IMCs in the specimen reacted at 300 °C for 180 min.



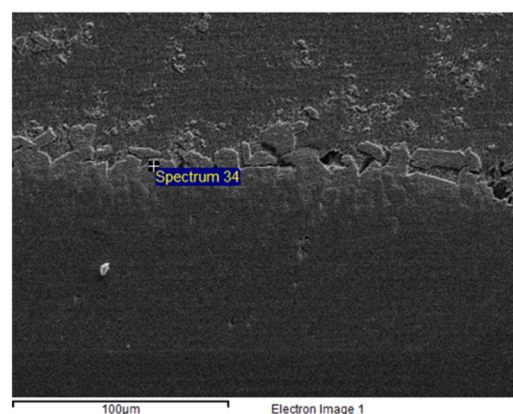
**Figure S2.** EDX analysis of the interfacial IMCs in the specimen reacted at 300 °C for 240 min.



**Figure S3.** EDX analysis of the interfacial IMCs in the specimen reacted at 350 °C for 60 min.



Element	Weight%	Atomic%
Ni K	25.65	29.06
Ga L	74.35	70.94
Totals	100.00	



Element	Weight%	Atomic%
Ni K	8.23	9.62
Ga L	91.77	90.38
Totals	100.00	

**Figure S4.** EDX analysis of the interfacial IMCs in the specimen reacted at 350 °C for 240 min.