

Supporting Information to
Laser ablation-ICP-TOFMS imaging of germ cell tumors of patients
undergoing platinum-based chemotherapy

Sarah Theiner^{1*}, Andreas Schweikert^{1,2}, Christine Haberler³, Andreas Peyrl⁴, Gunda Koellensperger¹

¹ Institute of Analytical Chemistry, University of Vienna, Waehringer Strasse 38, 1090 Vienna, Austria

² Institute of Inorganic Chemistry, University of Vienna, Waehringer Strasse 42, 1090 Vienna, Austria

³ Clinical Institute of Neurology, Medical University of Vienna, Waehringer Guertel 18-20, 1090 Vienna, Austria

⁴ Department of Pediatrics and Adolescent Medicine, Medical University of Vienna, Waehringer Guertel 18-20, 1090 Vienna, Austria

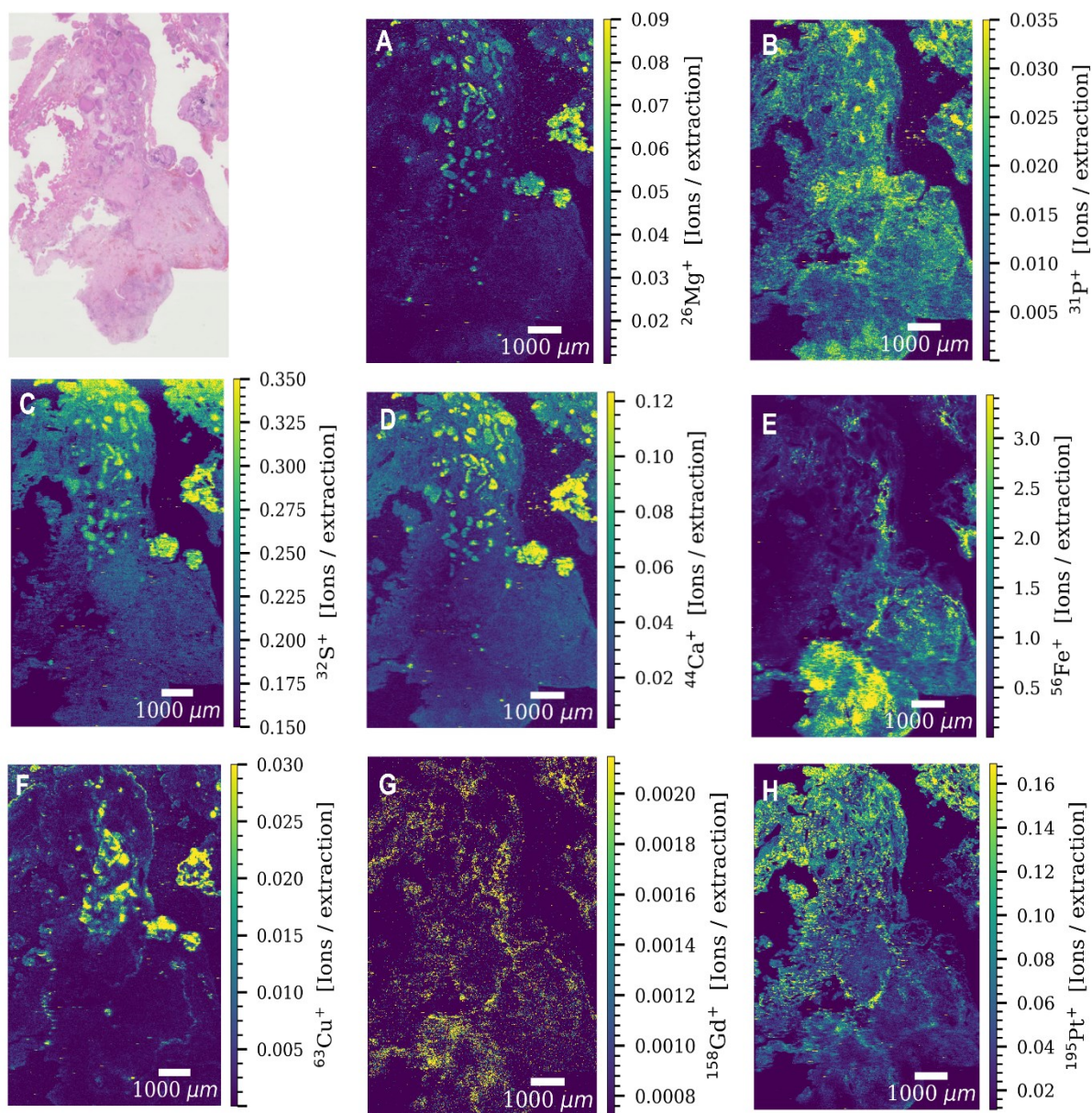


Figure S1. Signal intensity maps of (A) $^{26}\text{Mg}^+$, (B) $^{31}\text{P}^+$, (C) $^{32}\text{S}^+$, (D) $^{44}\text{Ca}^+$, (E) $^{56}\text{Fe}^+$, (F) $^{63}\text{Cu}^+$, (G) $^{158}\text{Gd}^+$ and (H) $^{195}\text{Pt}^+$ of a germ cell tumor tissue section of patient 1 obtained by LA-ICP-TOFMS imaging and the corresponding HE stained section of an adjacent slide. The following laser parameters were used: a square spot size of 20 μm , a fixed dosage mode of 2 and a repetition rate of 30 Hz. The parallel line scans overlapped one another by 10 μm .

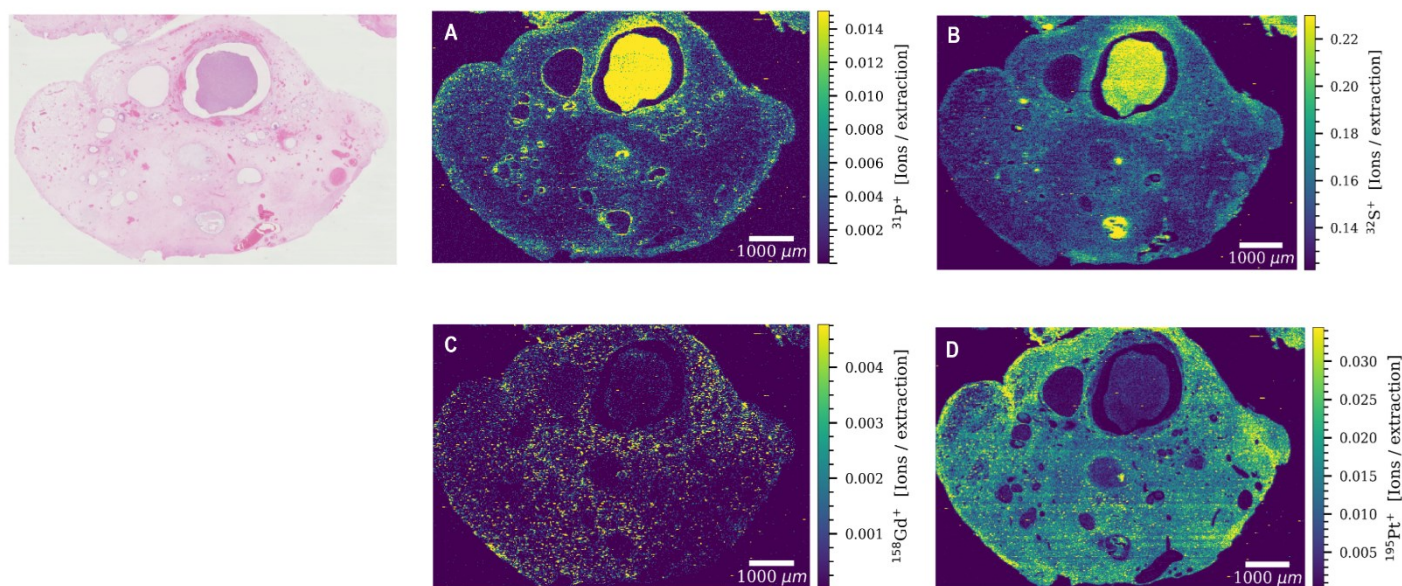


Figure S2. Signal intensity maps of (A) $^{31}\text{P}^+$, (B) $^{32}\text{S}^+$, (C) $^{158}\text{Gd}^+$ and (D) $^{195}\text{Pt}^+$ of a germ cell tumor tissue section of patient 2 obtained by LA-ICP-TOFMS imaging and the corresponding HE stained section of an adjacent slide. The following laser parameters were used: a square spot size of 20 μm , a fixed dosage mode of 2 and a repetition rate of 30 Hz. The parallel line scans overlapped one another by 10 μm .

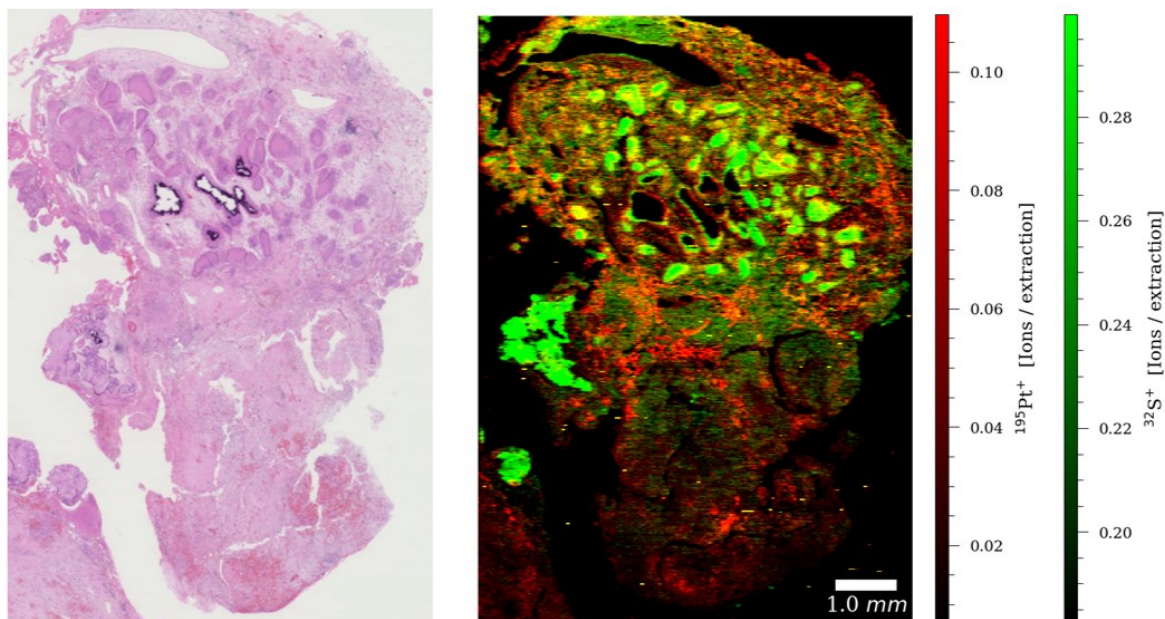


Figure S3. Correlation of the histology with the elemental distribution pattern obtained by LA-ICP-TOFMS. HE stained slide of a germ cell tumor section of patient 1 and overlay of $^{195}\text{Pt}^+$ (red) and $^{32}\text{S}^+$ (green) intensity maps. The following laser parameters were used: a square spot size of 20 μm , a fixed dosage mode of 2 and a repetition rate of 30 Hz. The parallel line scans overlapped one another by 10 μm .

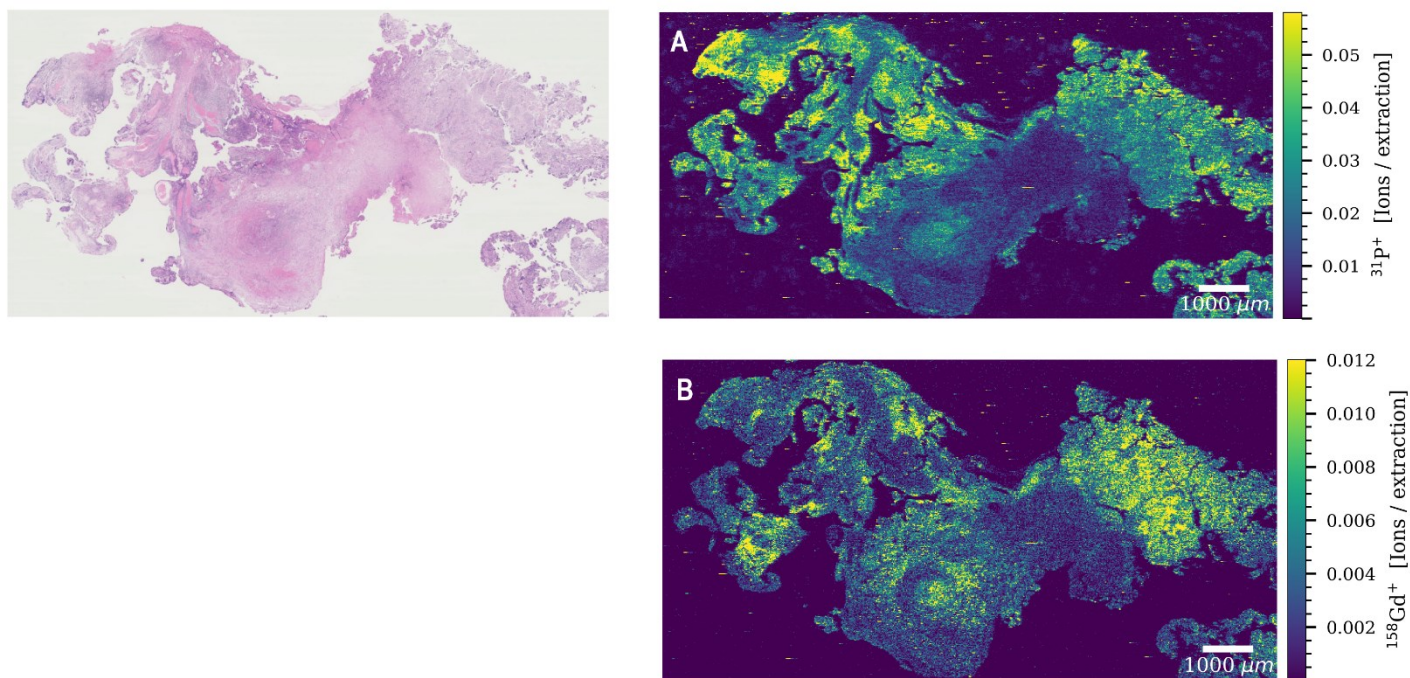


Figure S4. Signal intensity maps of (A) $^{31}\text{P}^+$ and (B) $^{158}\text{Gd}^+$ of a germ cell tumor tissue section of patient 3 (control sample) obtained by LA-ICP-TOFMS imaging and the corresponding HE stained section of an adjacent slide. The following laser parameters were used: a square spot size of 20 μm , a fixed dosage mode of 2 and a repetition rate of 30 Hz. The parallel line scans overlapped one another by 10 μm .