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Size and metal composition characterization of nano and microparticles in tattoo inks by a combination of analytical techniques

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Supplementary Information

Table S1. AF4-MALS and off-line ICP-MS experimental conditions

Injector	PN5300 Injector, 20 µl injection
Channel	AF2000 AF4 Channel; 350 µm thickness; NovaRC 10 kDa Membrane
Detectors	PN3621 MALS – Static Light Scattering, 92° Agilent 7700 ICP-MS – Power RF: 1400 W; Argon flow rates: plasma, 15 l/min; aerosol 1.05 l/min; auxiliary 1.2 l/min; Nebulizer: PFA-ST; Analytical masses: ^{27}Al, ^{65}Cu, ^{47}Ti
Eluent	high-purity deionized water
Elution flow	1.0 ml/min
Cross flow	1.0 ml/min
Focus flow	1.0 ml/min
Step 1: focus flow	0-1 min
Step 2: injection with focus flow	1-4 min
Step 3: elution with cross flow	4-56 min
Step 4: elution without cross flow	56-60 min

Table S2. SP-ICP-MS experimental conditions

Instrument	Thermo Fisher iCAPQ ICP-MS
Argon gas flow rate	Plasma, 15 l/min; aerosol 1.05 l/min; auxiliary 1.2 l/min
Power RF	1400 W
Nebulizer	PFA-ST, sample flow rate 0.5 ml/min; efficiency: 0.05
Analytic masses	^{27}Al, ^{65}Cu, ^{47}Ti
Dwell time	5 ms
Acquisition	KED mode with tQuant for transient data collection
Total acquisition time	80 s

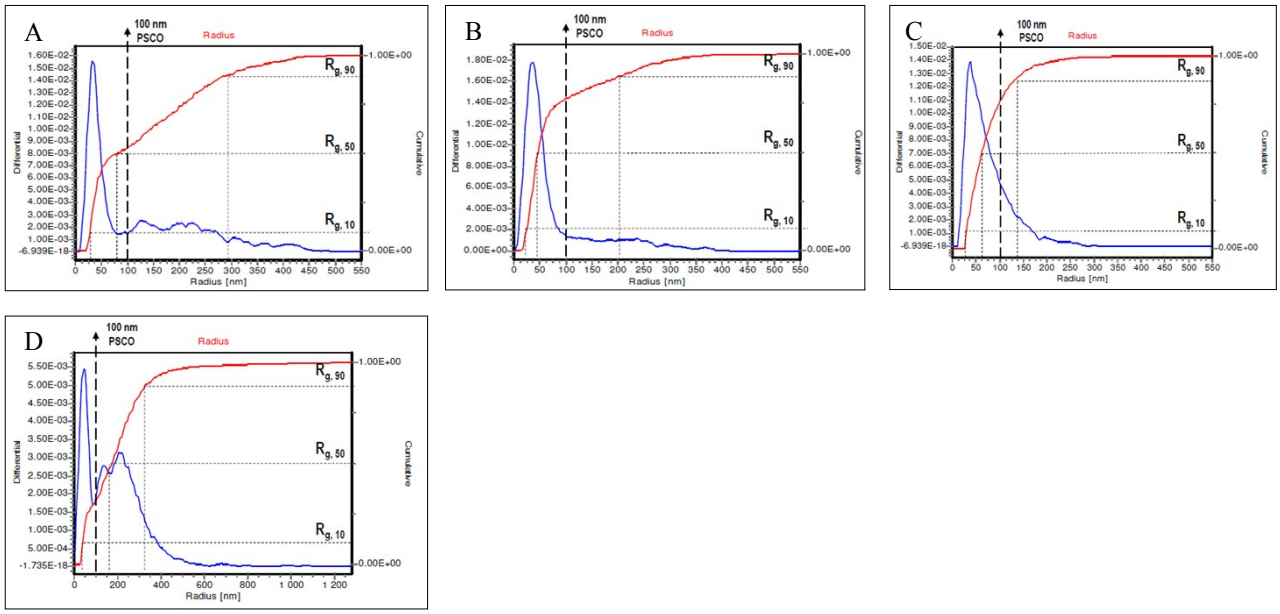

Figure S1. AF4-MALS particle size distribution with cumulative (red trace) and differential (blue trace) number fraction curves. **A**. Ink number 2, Ice blue; **B**. Ink number 5, Deep violet; **C**. Ink number 6, Black outlining; **D**. Ink number 7, Grasshopper green.