

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
09 June 2022 (09.06.2022)



(10) International Publication Number
WO 2022/120363 A1

- (51) **International Patent Classification:**
B01J 20/32 (2006.01) *G01N 30/00* (2006.01)
G01N 1/40 (2006.01)
- (21) **International Application Number:**
PCT/US2021/072707
- (22) **International Filing Date:**
02 December 2021 (02.12.2021)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/121,035 03 December 2020 (03.12.2020) US
63/121,050 03 December 2020 (03.12.2020) US
63/121,071 03 December 2020 (03.12.2020) US
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- (81) **Designated States** (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,
SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(54) **Title:** PRE-COATINGS FOR BIOCOMPATIBLE SOLID PHASE MICROEXTRACTION DEVICES

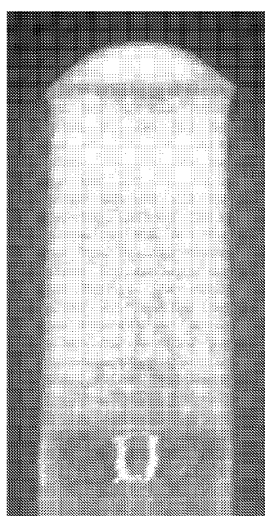


FIG. 1A

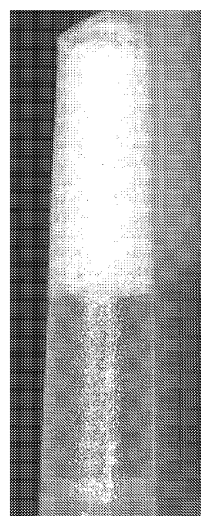


FIG. 1B

(57) **Abstract:** An improved device for solid phase microextraction, the device including a plastic substrate, a pre-coating layer on the plastic substrate, and an SPME coating on the pre-coating layer. SPME coatings are typically incompatible with plastic substrates due to differences between the surface energies of the substrate and the coating, leading to uneven coating and poor adhesion. The addition of the pre-coating layer provides increased evenness and stronger adhesion of the SPME coating to the plastic substrate. Also provided are method of coating an SPME coating on a plastic substrate, the method including the step of pre-coating the plastic substrate to provide a pre-coated substrate and then coating the pre-coated substrate with an SPME coating, wherein pre-coating provides improved coating evenness and adhesion of the SPME coating to the plastic substrate.

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(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*