

Supporting Information

Construction of hydrophobic-hydrophilic open-droplet microfluidic chemosensor towards colorimetric/spectrophotometric recognition of quetiapine fumarate: A cost-benefit method for biomedical analysis using smartphone

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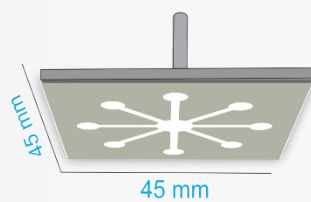
Simple μ PCD designing

Each well's diameter= 5 mm

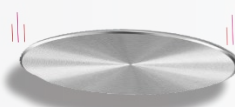
Central well diameter= 10 mm

Channel width= 3 mm

Channel length= 10 mm



165 °C

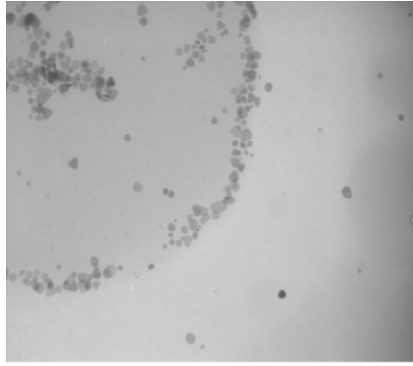


Magnet



65 °C

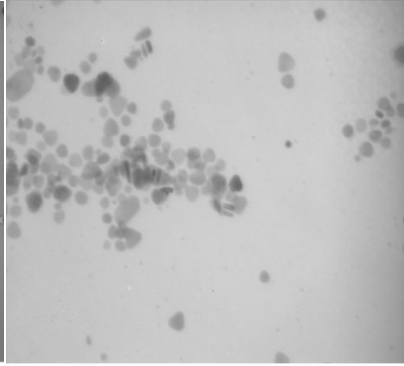
Scheme S1. The fabrication procedure of μ PCD.



30 nm



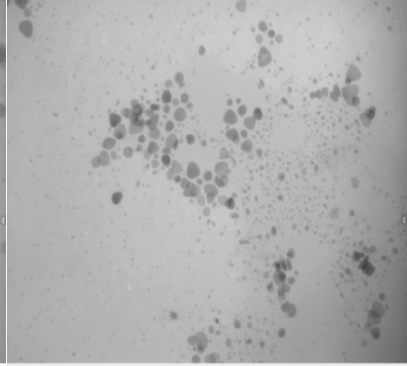
Drug Applied Research Center



30 nm



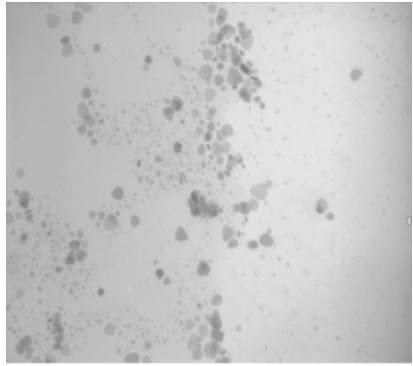
Drug Applied Research Center



30 nm



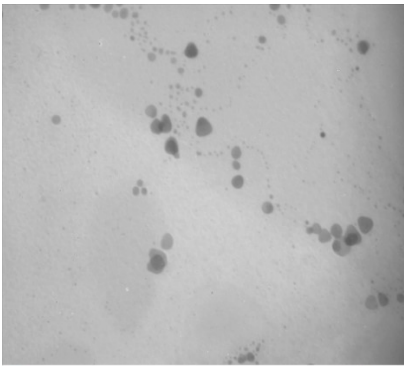
Drug Applied Research Center



30 nm



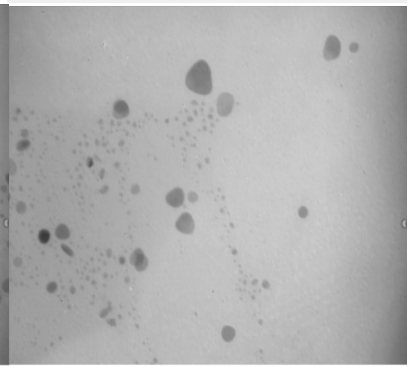
Drug Applied Research Center



20 nm



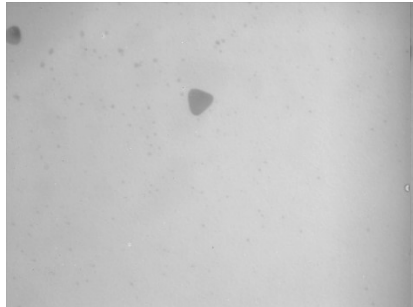
Drug Applied Research Center



20 nm



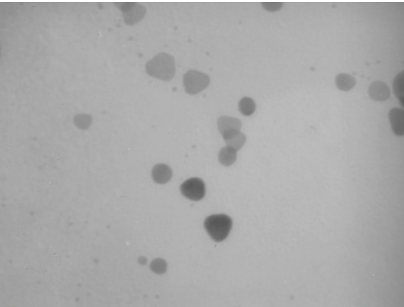
Drug Applied Research Center



30 nm



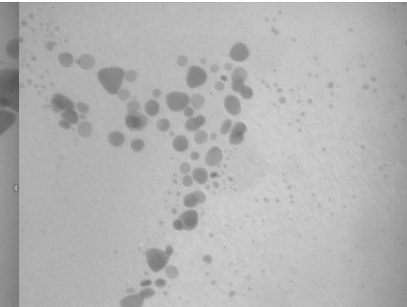
Drug Applied Research Center



20 nm



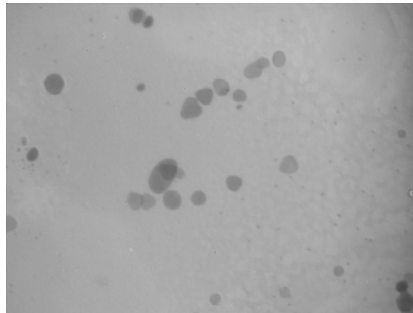
Drug Applied Research Center



15 nm



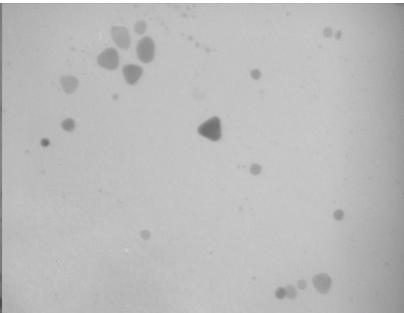
Drug Applied Research Center



15 nm



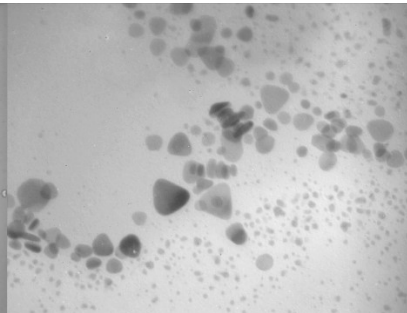
Drug Applied Research Center



15 nm



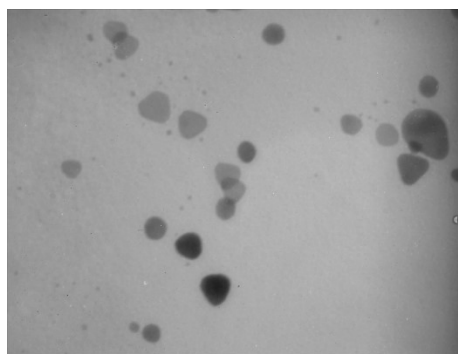
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15 nm



Drug Applied Research Center



10 nm



Drexel Applied Research Center

Fig. S1. TEM images of Ag NPrs in 30, 20, 15, and 10 nm scales

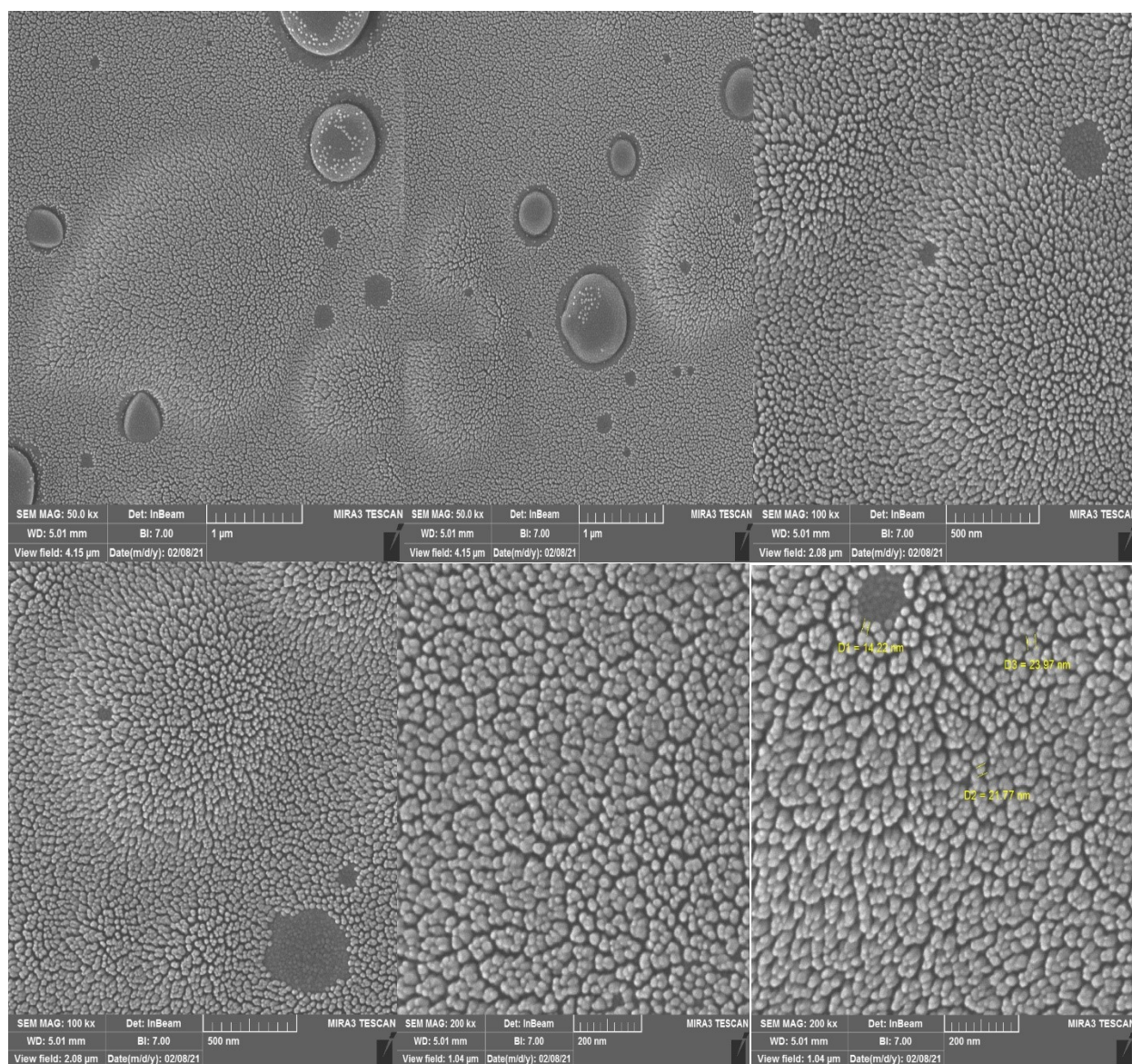
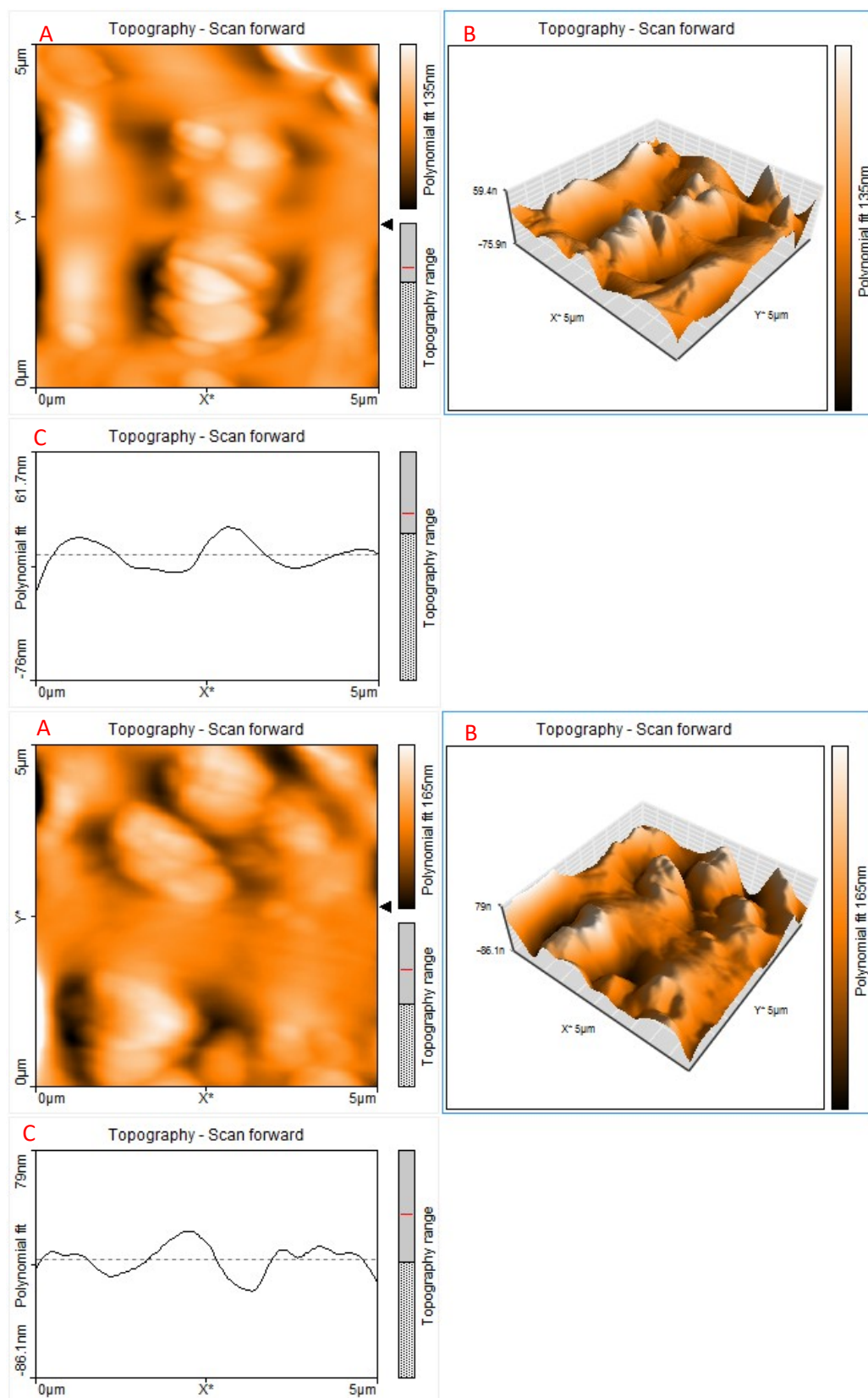


Fig. S2. FE-SEM Images of AgNPrs in different magnification.



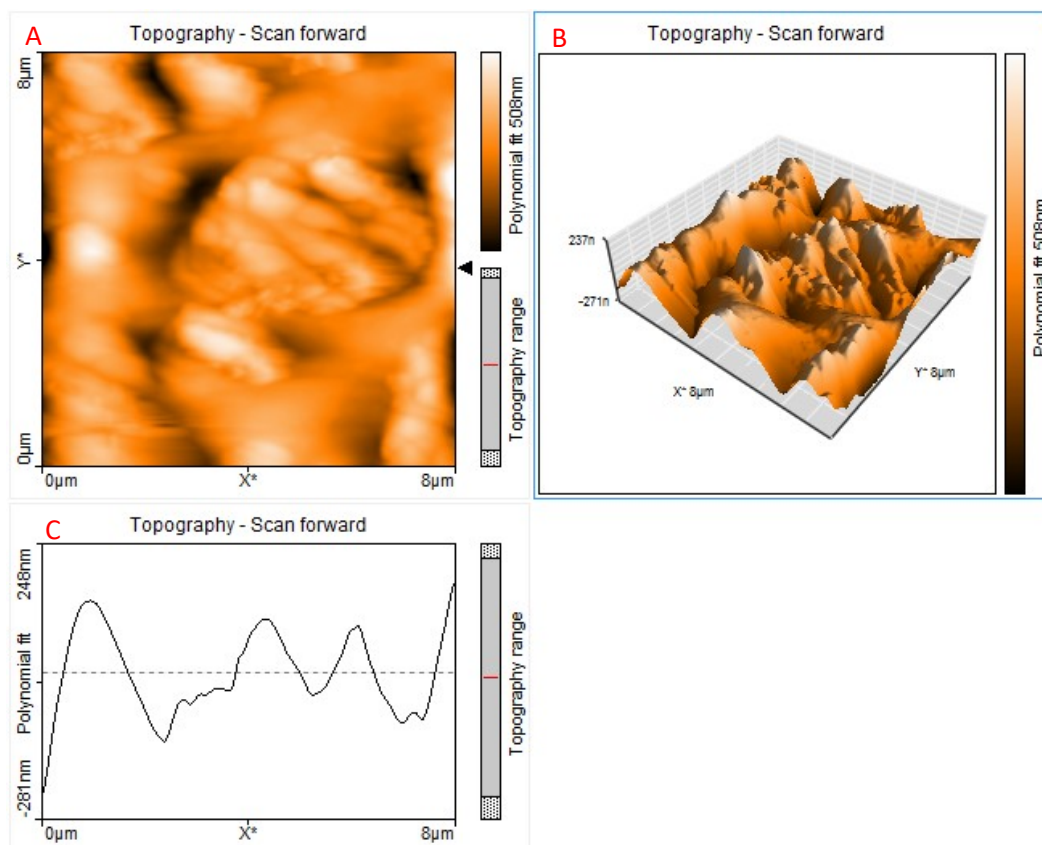


Fig. S3. 2D (A) and 3D (B) of topographic AFM images of AgNPs

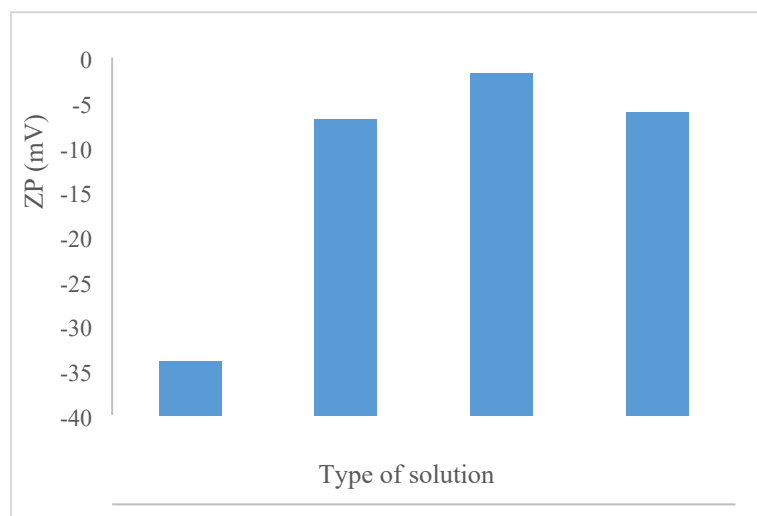


Fig. S4. Comparison between Zp of probs.

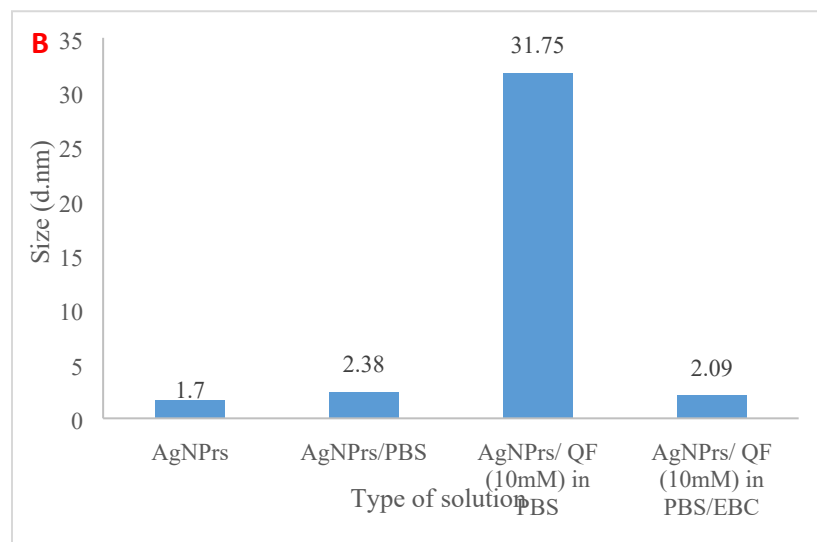
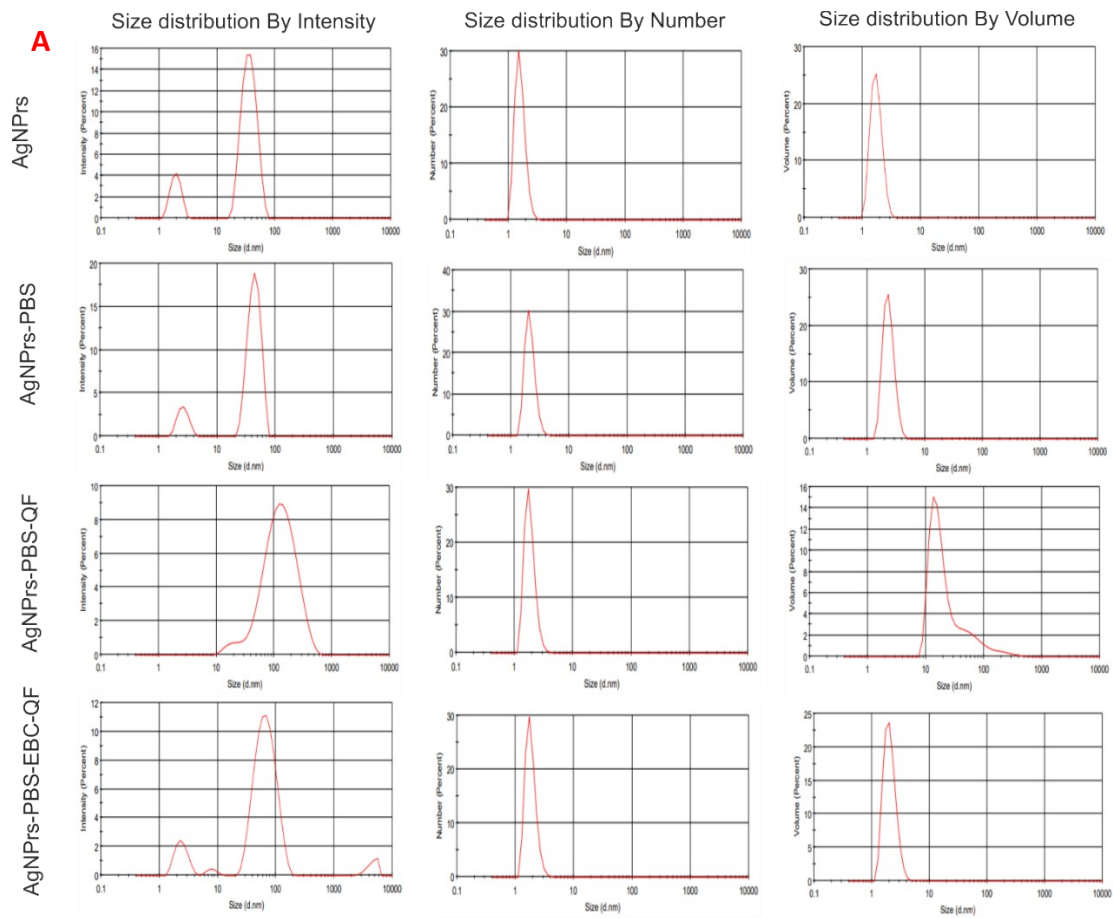


Fig. S5. A) DLS graphs of AgNPrs and affected AgNPrs by intensity, number, and volume. **B)** Comparison between DLS of probes.

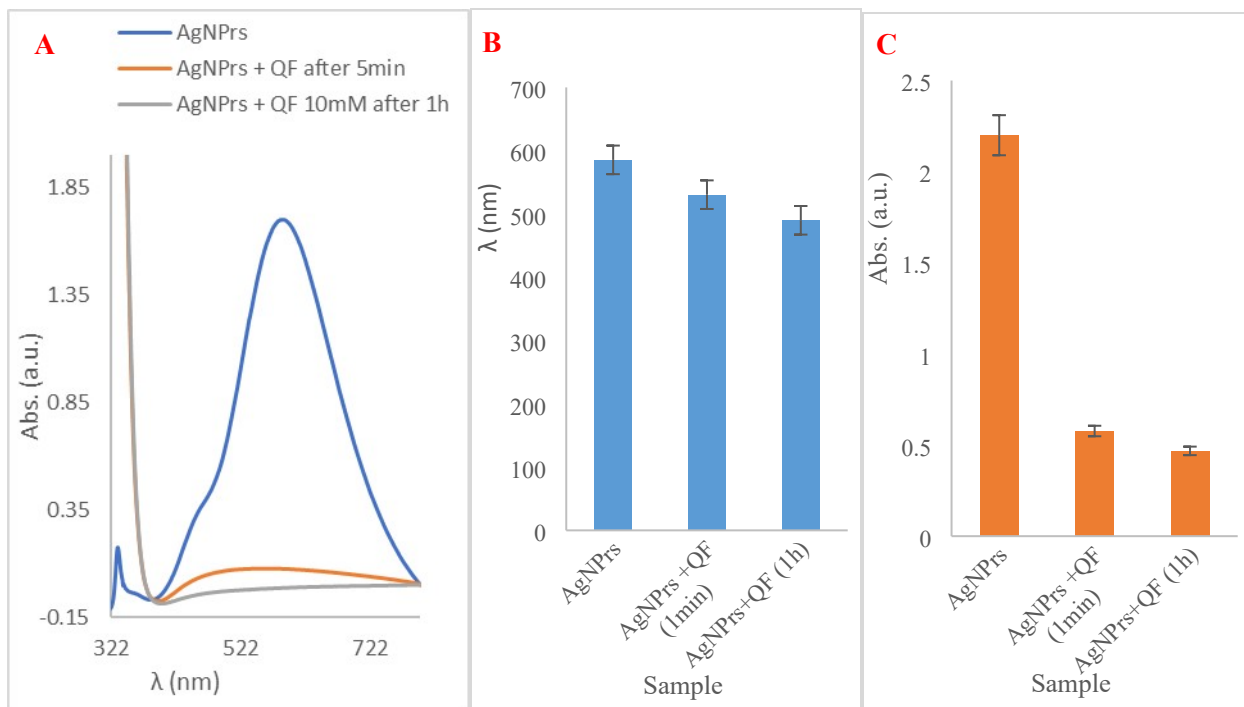
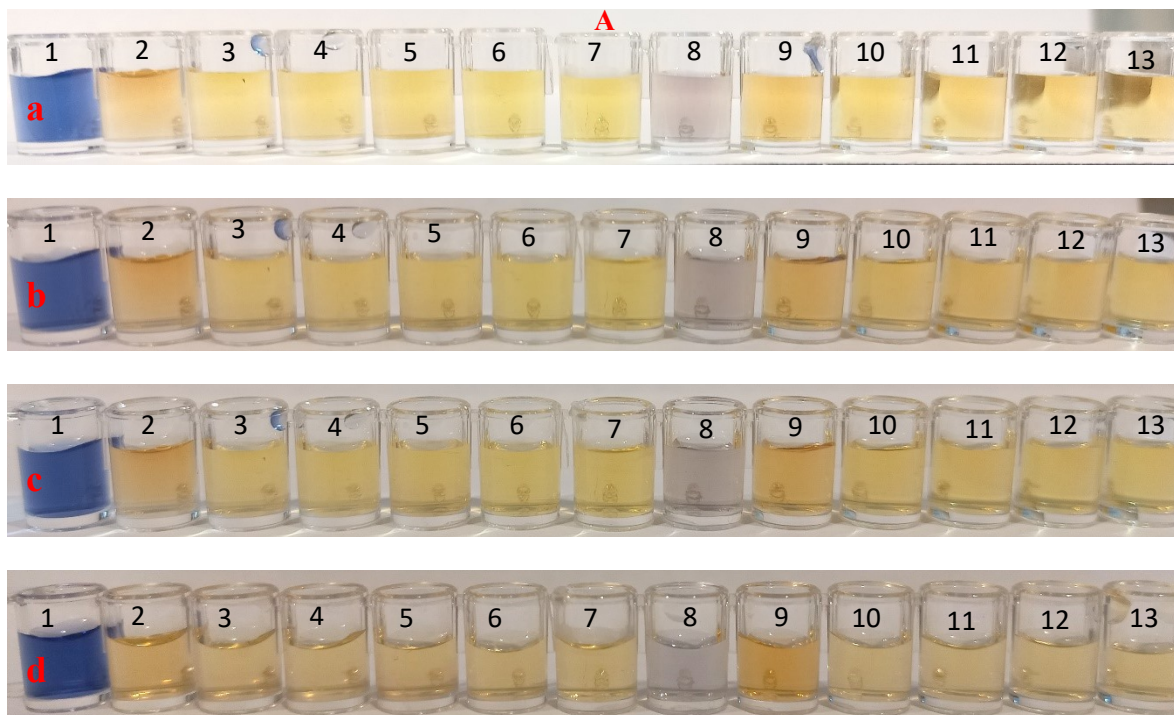


Fig S6. A) Spectrophotometric analysis of AgNPrs, AgNPrs+ QF after 5 min, AgNPrs+ QF after 1h **B)** The histogram of related wavelength **C)** The histogram of related light absorption intensity ($\lambda_{490-585.5}$).



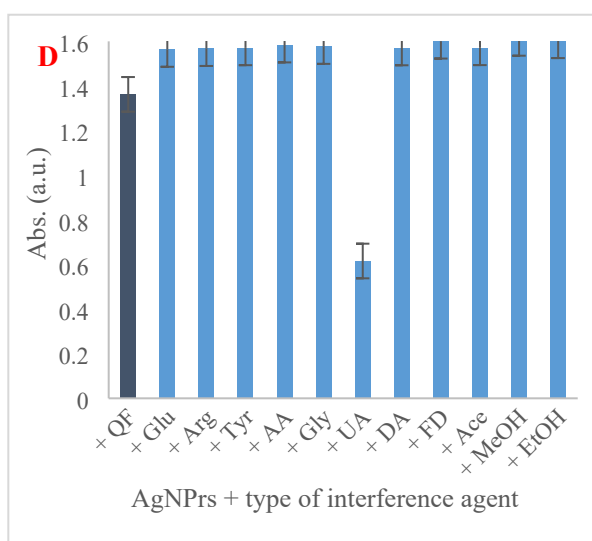
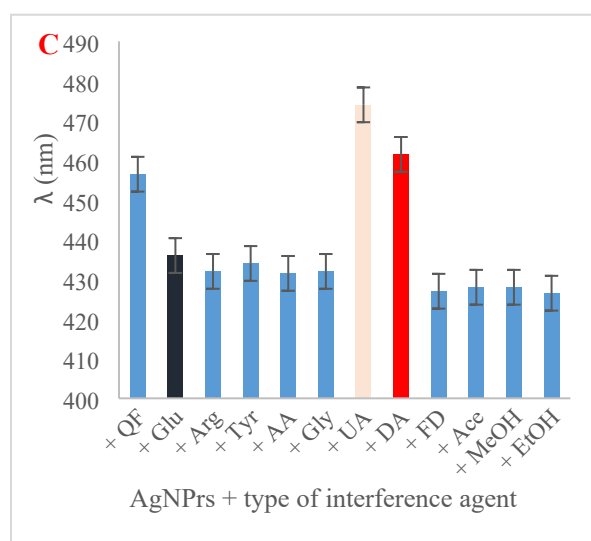
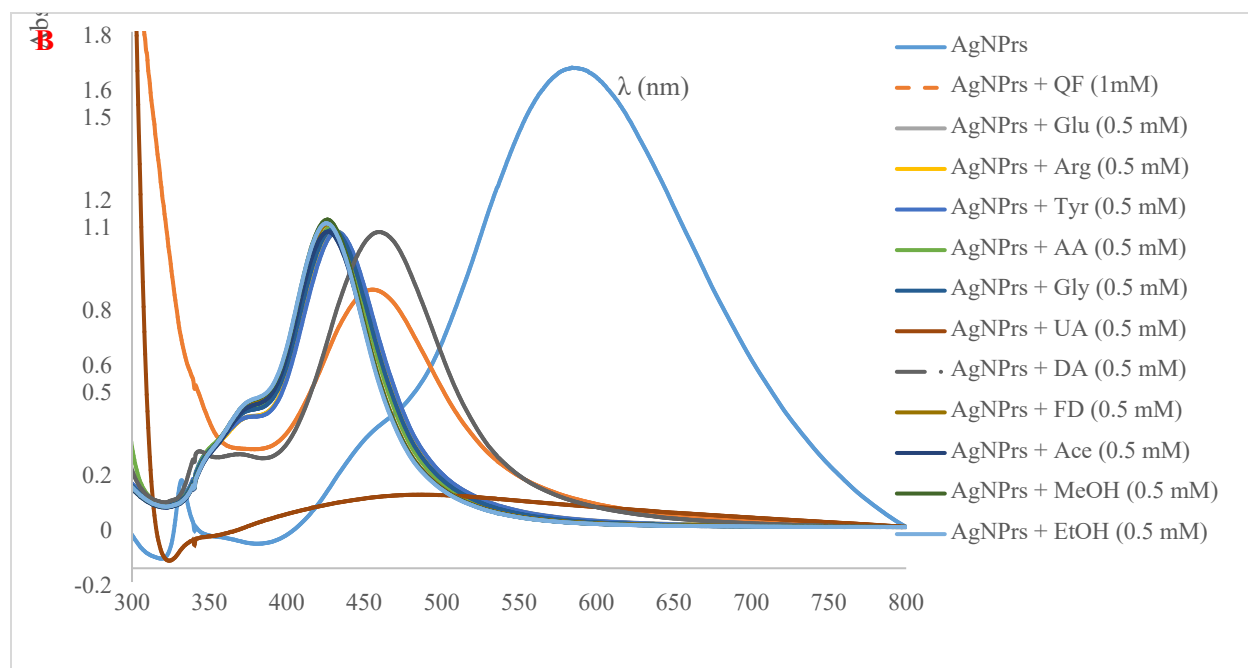
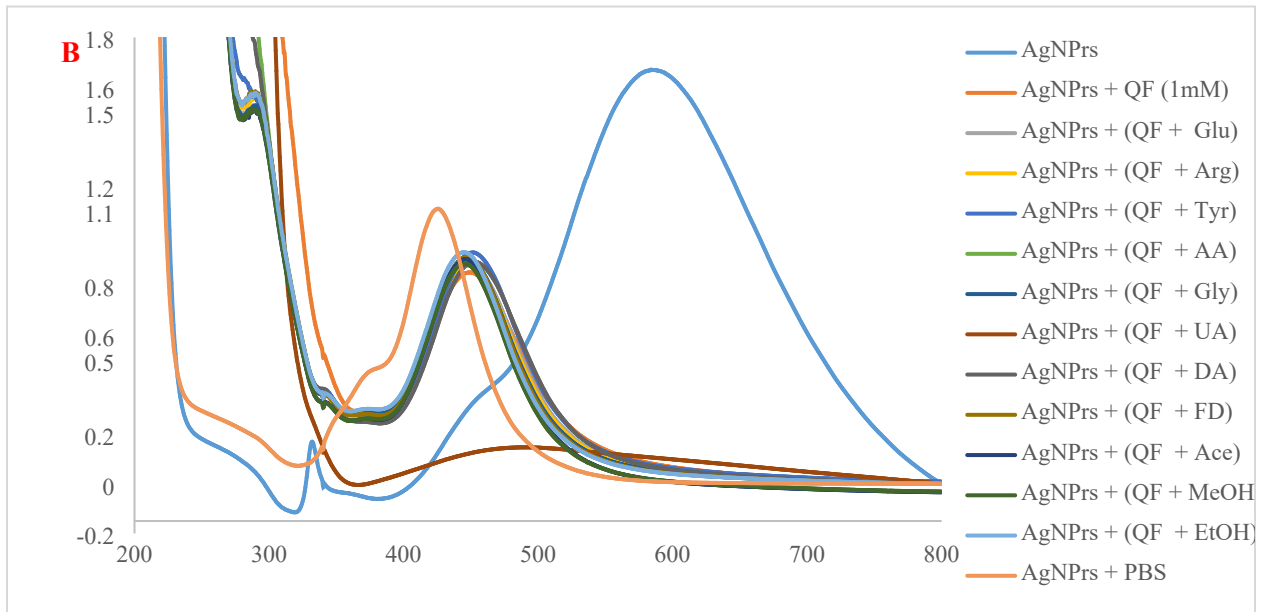
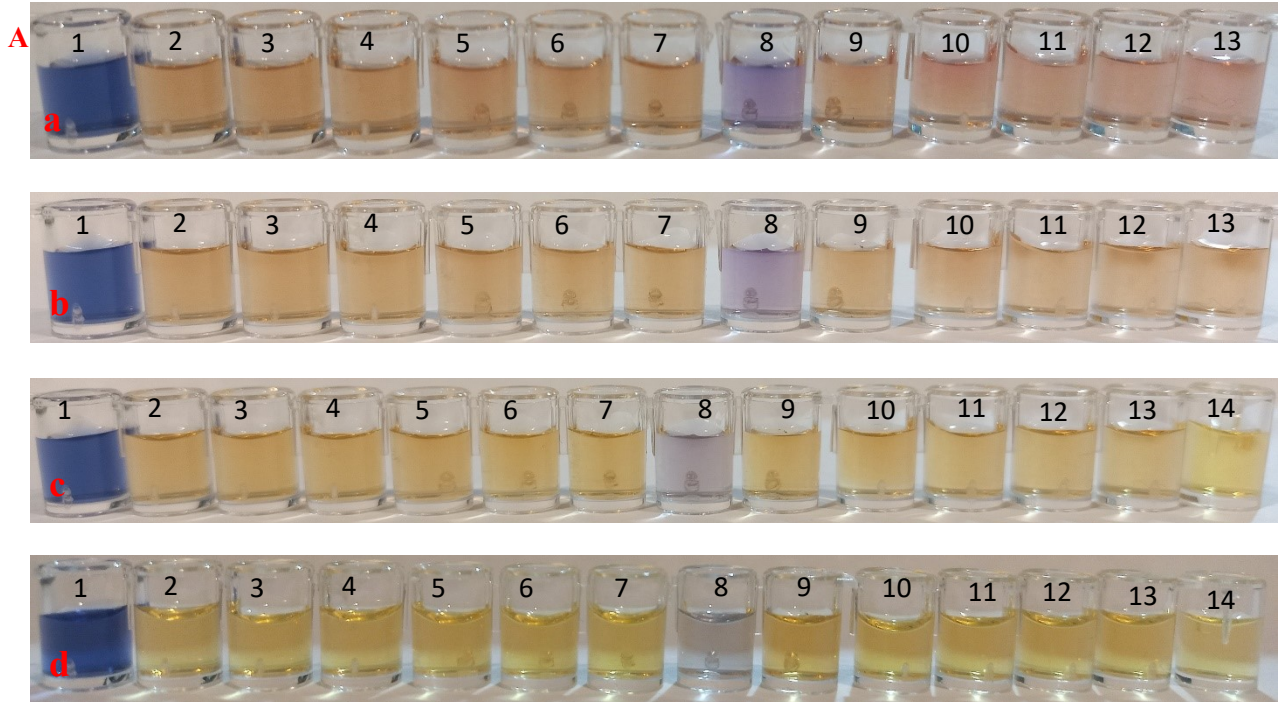


Fig S7. A) Digital images of **1.** AgNPrs, **2.** AgNPrs/QF, **3.** AgNPrs/Glu, **4.** AgNPrs /Arg, **5.** AgNPrs /Tyr, **6.** AgNPrs/AA, **7.**AgNPrs/ Gly, **8.** AgNPrs/UA, **9.** AgNPrs/DA, **10.** AgNPrs/FD, **11.** AgNPrs/Ace, **12.** AgNPrs/MeOH, and **13.** AgNPrs/EtOH at **a)** 10 seconds, **b)** 1 minute, **c)** 3 minutes, and **d)** 1 hour after the reaction. The ratio of solutions from No. 2 to No. 13 is 1:1 V/V (AgNPrs/QF (1 mM) or interference species (0.5 mM)). **B)** Uv-vis Spectrophotometric of related solutions with the ratio of 1:1 V/V. **C)** The LSPR peak position histogram of mentioned solutions ($\lambda=426-474$ nm). **D)** The LSPR peak intensity histogram of mentioned solutions ($\lambda=426-474$ nm).



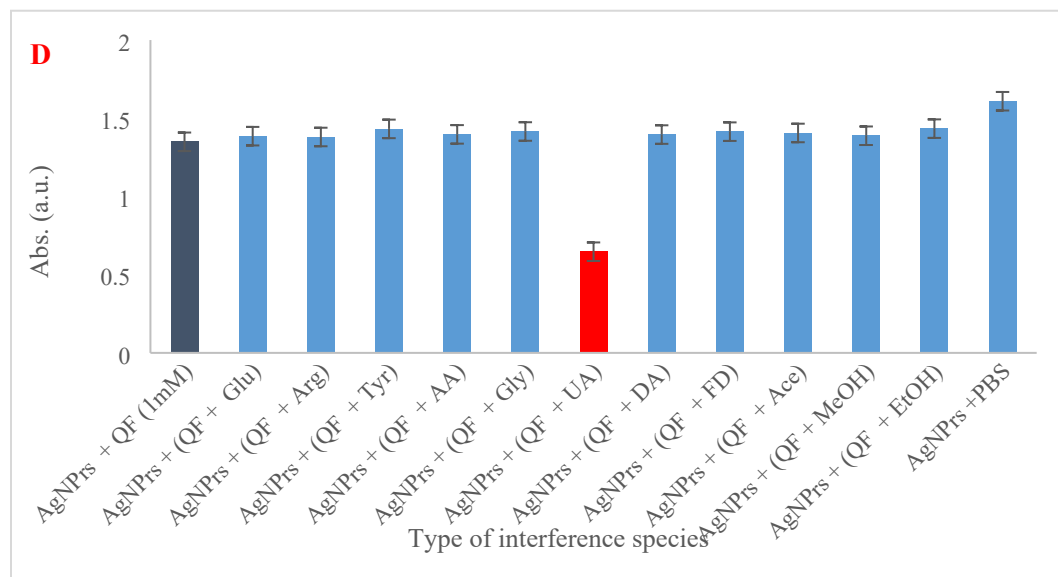
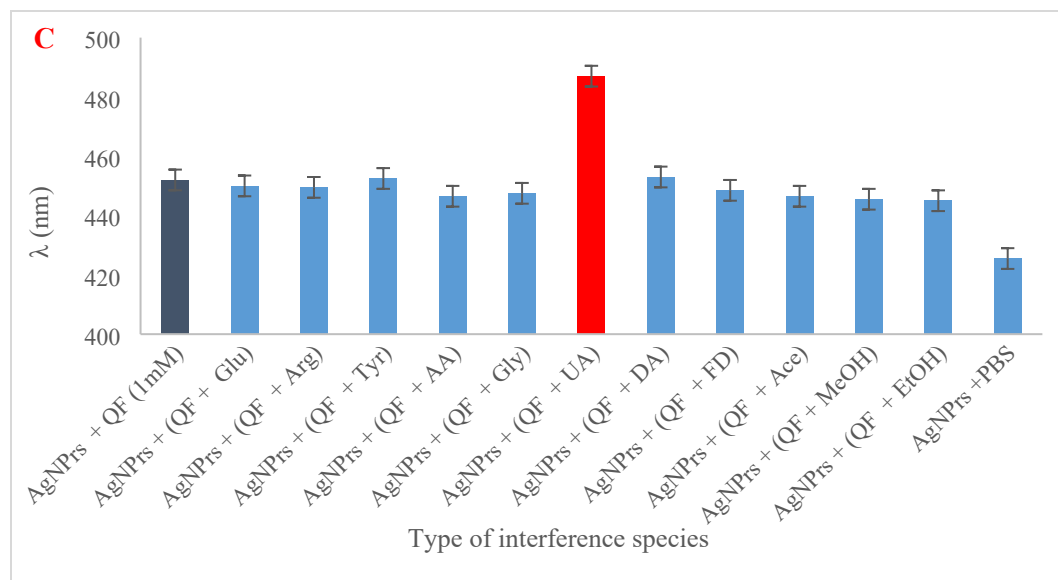
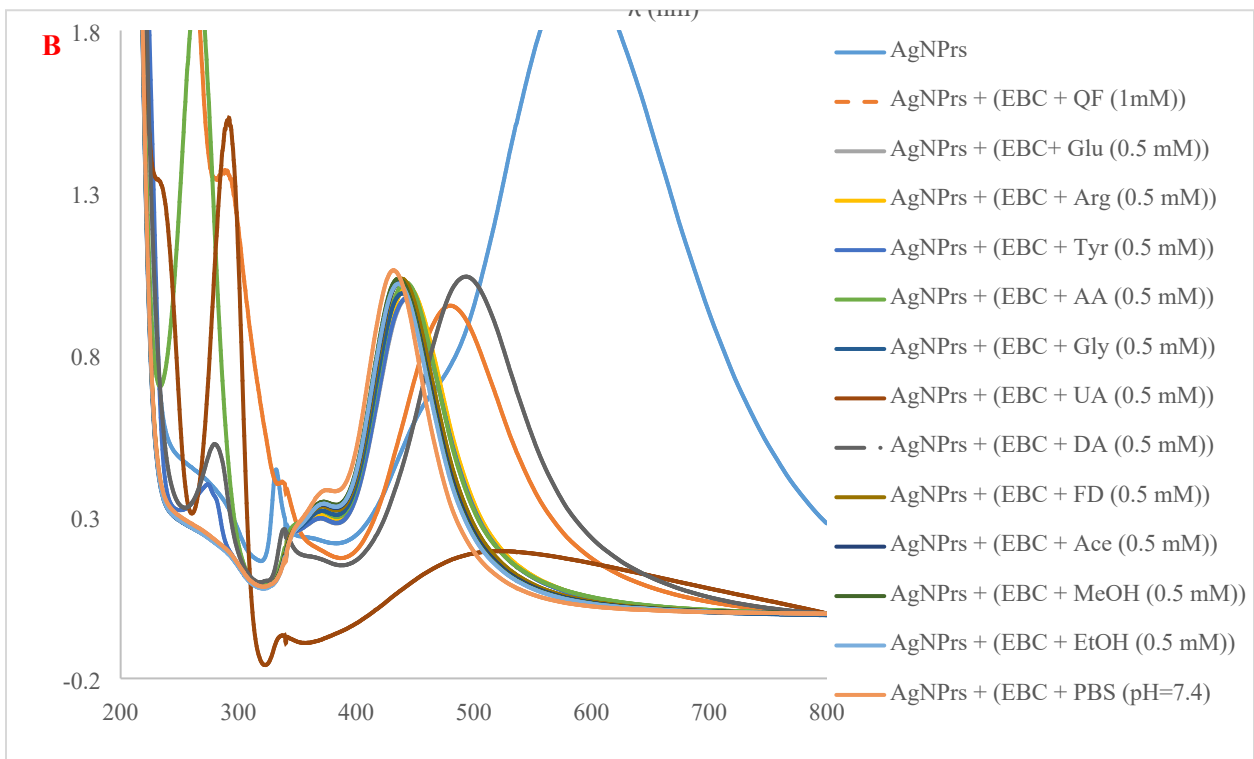
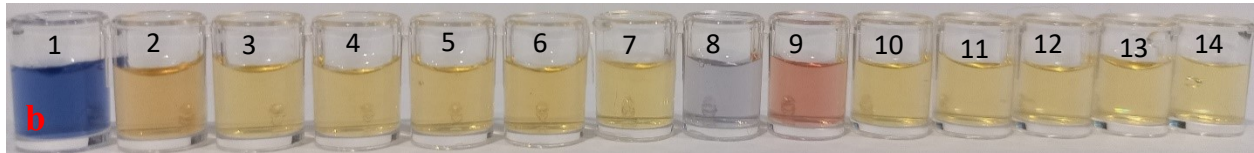
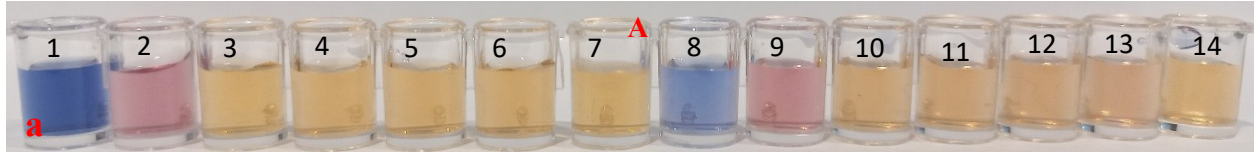


Fig S8. **A)** Digital images of **1.** AgNPrs, **2.** AgNPrs/QF (1:1 V/V), **3.** AgNPrs/QF/Glu, **4.** AgNPrs/QF/Arg, **5.** AgNPrs/QF/Tyr, **6.** AgNPrs/QF/AA, **7.** AgNPrs/QF/Gly, **8.** AgNPrs/QF/UA, **9.** AgNPrs/QF/DA, **10.** AgNPrs/QF/FD, **11.** AgNPrs/QF/Ace, **12.** AgNPrs/QF/MeOH, **13.** AgNPrs/QF/EtOH at **a)** 10 seconds, **b)** 1 minute, **c)** 5 minutes, and **d)** 1 hour after the reaction. The ratio of solutions from No. 3 to No. 13 is 1:0.5:0.5 V/V/V (AgNPrs/QF (1 mM)/interference species (0.5 mM)). No. 14 (AgNPrs/PBS with 1:1 V/V ratio) was added in c and d for comparison. **B)** Uv-vis Spectrophotometric of related solutions. **C)** The LSPR peak position histogram of

mentioned solutions ($\lambda=425-487$ nm). D) The LSPR peak intensity histogram of mentioned solutions ($\lambda=425-487$ nm).



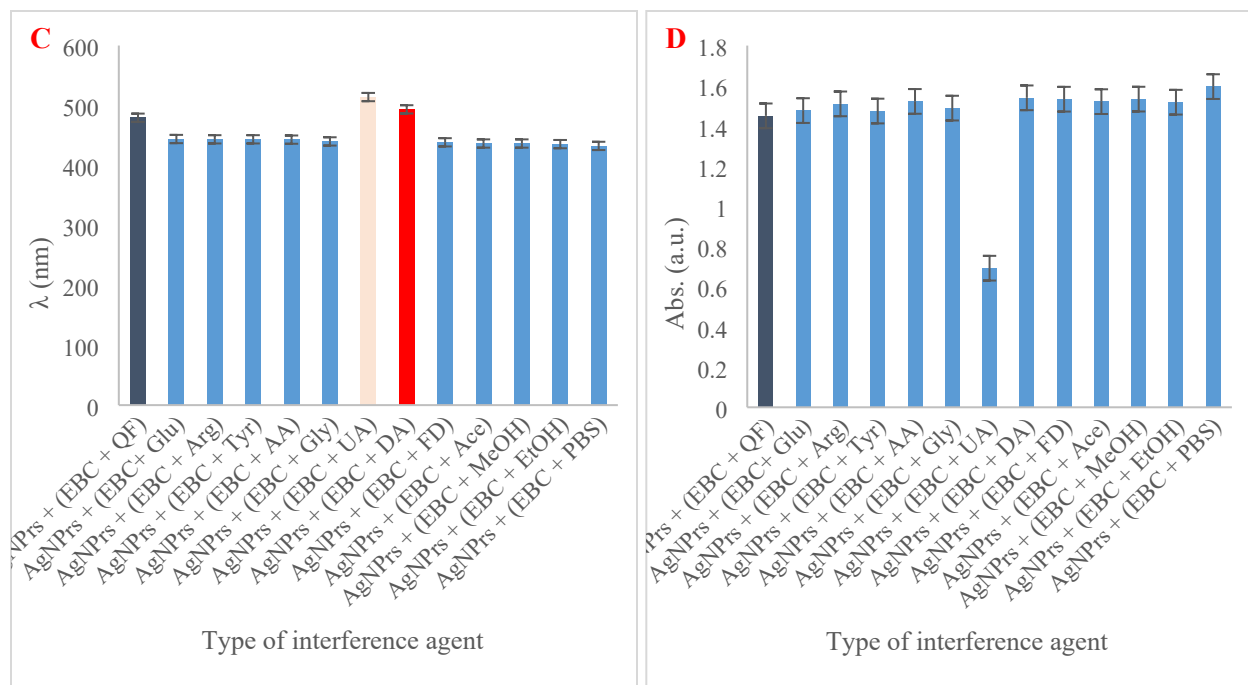
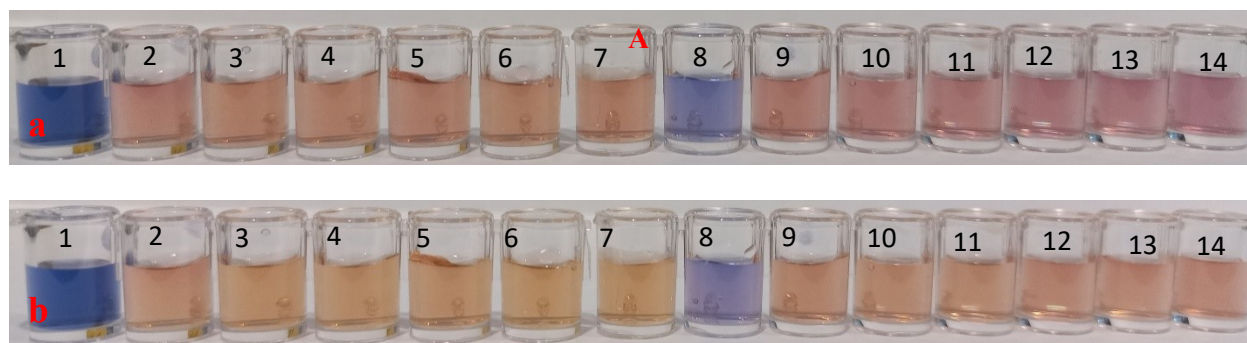


Fig S9. A) Digital images of **1.** AgNPs, **2.** AgNPs/EBC/QF, **3.** AgNPs/EBC/Glu, **4.** AgNPs/EBC/ Arg, **5.** AgNPs/EBC/Tyr, **6.** AgNPs/EBC/AA, **7.** AgNPs/EBC/Gly, **8.** AgNPs/EBC/UA, **9.** AgNPs/EBC/DA, **10.** AgNPs/EBC/FD, **11.** AgNPs/EBC/Ace, **12.** AgNPs/EBC/MeOH, **13.** AgNPs/EBC/EtOH, and **14.** AgNPs/EBC/PBS at **a)** 10 seconds, **b)** 45 minutes after the reaction. The ratio of solutions from No. 2 to 13 is 1:0.5:0.5 V/V/V (AgNPs/EBC/QF (1mM) or interference species (0.5 mM) and for No. 14 is 1:0.5:0.5 V/V/V (AgNPs/EBC/PBS). **B)** The related Uv-Vis spectrophotometric for mentioned solutions. **C)** The LSPR peak position histogram of mentioned solutions. **D)** The LSPR peak intensity histogram of mentioned solutions.



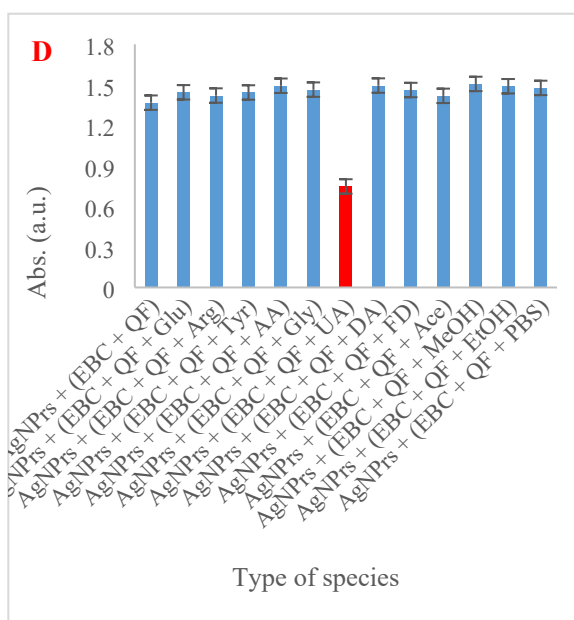
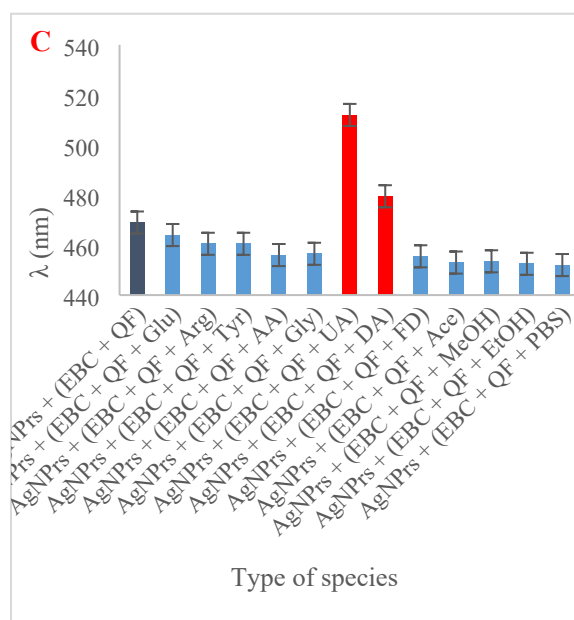
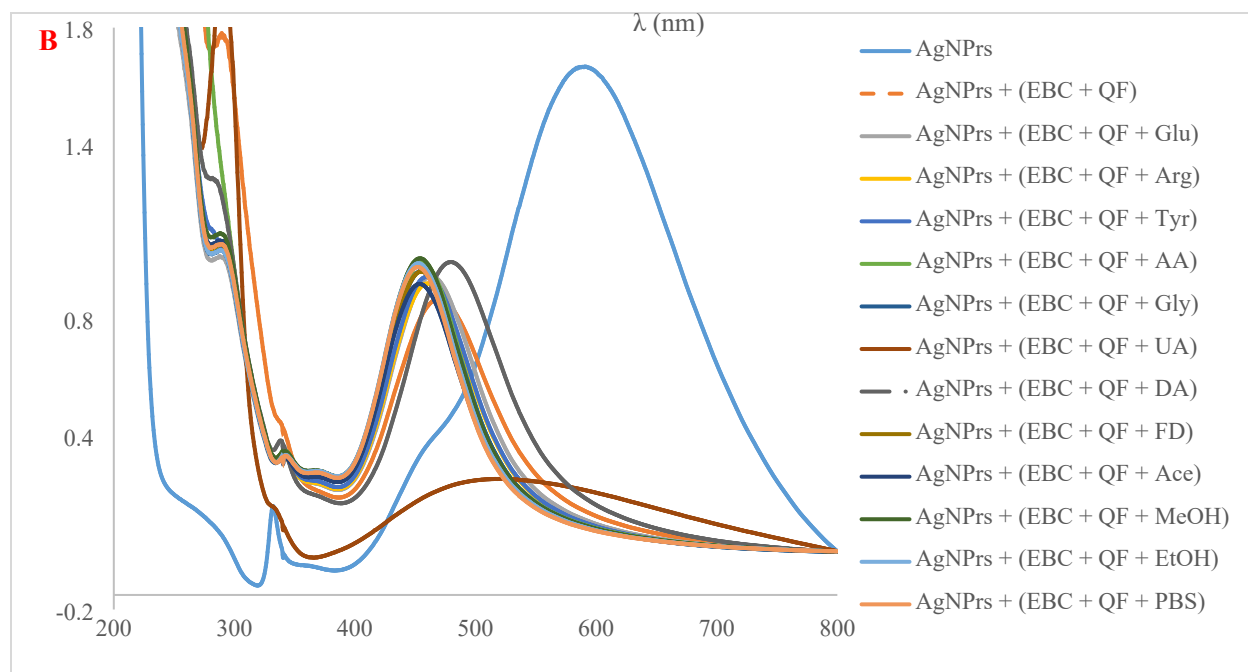


Fig S10. A) Digital images of 1. AgNPrs, 2. AgNPrs/EBC/QF (1.5:0.5:1 V/V/V), 3. AgNPrs/EBC/QF/Glu, 4. AgNPrs/EBC/QF/Arg, 5. AgNPrs/EBC/QF/Tyr, 6. AgNPrs/EBC/QF/AA, 7. AgNPrs/EBC/QF/Gly, 8. AgNPrs/EBC/QF/UA, 9. AgNPrs/EBC/QF/DA, 10. AgNPrs/EBC/QF/FD, 11. AgNPrs/EBC/QF/Ace, 12. AgNPrs/EBC/QF/MeOH, 13. AgNPrs/EBC/QF/EtOH, and 14. AgNPrs/EBC/QF/PBS (1.5:0.5:0.5:0.5 V/V/V/V) at A) 10

seconds, **B**) 1 minute after the reaction. The ratio of solutions from No. 3 to No. 13 is 1.5:0.5:0.5:0.5 V/V/V/V (AgNPrs/EBC/QF (1 mM) /interfering species (0.5 mM)). **B**) The related uv-vis spectrophotometric for mentioned solutions. **C**) The LSPR peak position histogram of mentioned solutions. **D**) The LSPR peak intensity histogram of mentioned solutions.

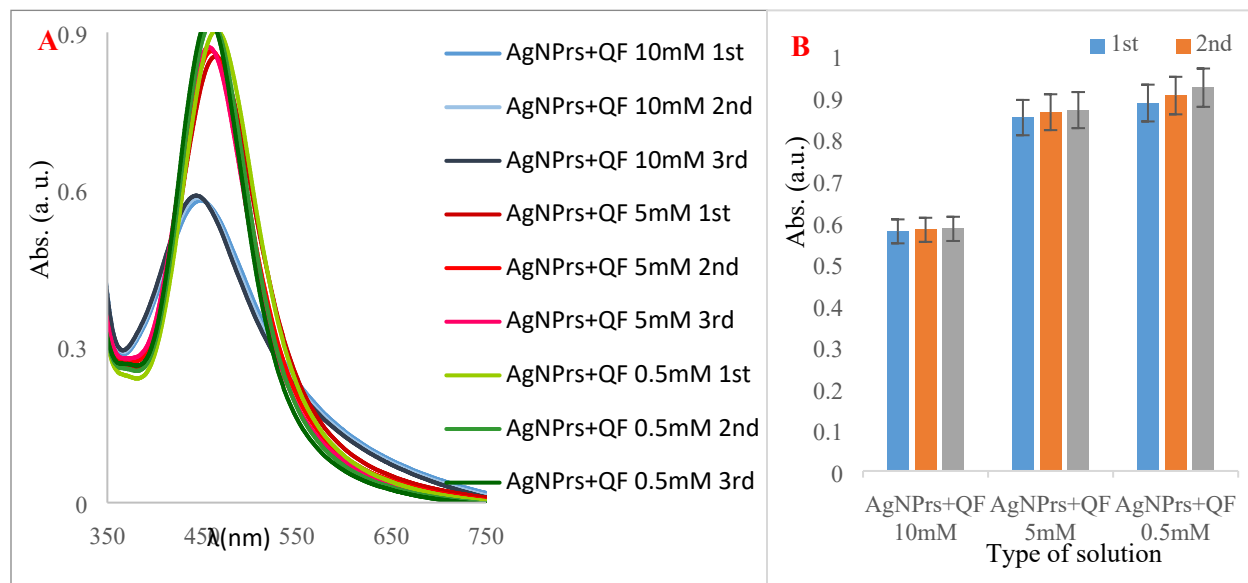
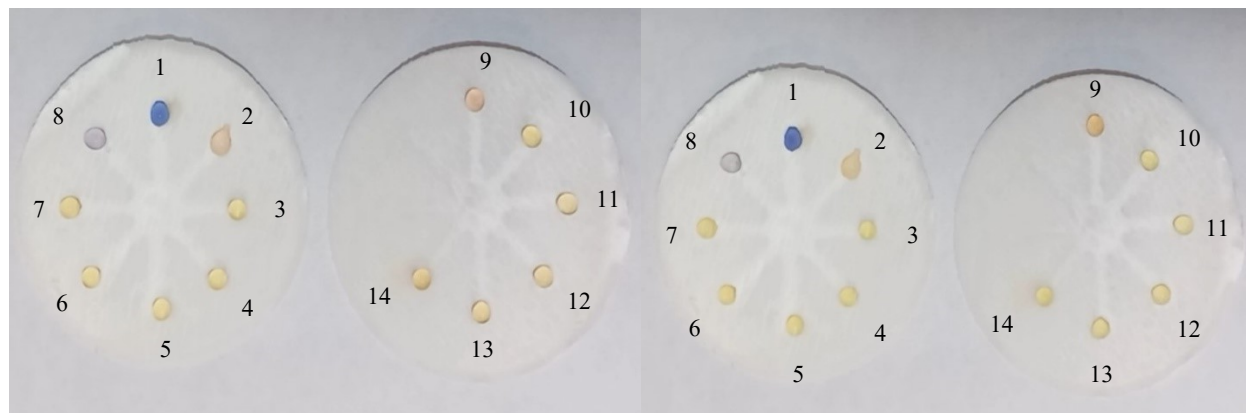


Fig S11. A) The Uv-Vis spectrum of three separate combinations of AgNPrs with QF 10 (n=3), 5 (n=3), 0.5 (n=3) mM included in PBS with 1:1 V/V ratio.

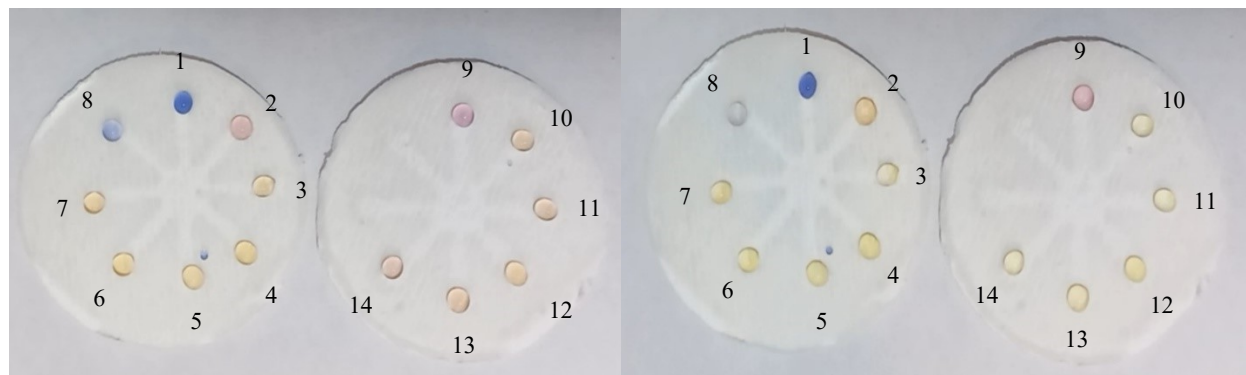


▶ 06:41 / 28:23

▶ 28:13 / 28:23

Fig S12. Digital images of μ PCD sheets with semi-hydrophilic wells injected with: 1. AgNPrs, 2. AgNPrs/QF, 3. AgNPrs/Glu, 4. AgNPrs /Arg, 5. AgNPrs /Tyr, 6. AgNPrs/AA, 7. AgNPrs/ Gly, 8.

AgNPrs/UA, **9.** AgNPrs/DA, **10.** AgNPrs/FD, **11.** AgNPrs/Ace, **12.** AgNPrs/MeOH, and **13.** AgNPrs/EtOH, and **14.** AgNPrs/PBS. The ratio of solutions from No. 2 to No. 14 is 1:1 V/V (AgNPrs/QF (1 mM) or interference species (0.5 mM) or PBS.



07:16 / 21:04

21:03 / 21:04

Fig S13. Digital images of μ PCD sheets with semi-hydrophilic wells injected with: **1.** AgNPrs, **2.** AgNPrs/EBC/QF, **3.** AgNPrs/EBC/Glu, **4.** AgNPrs /EBC/ Arg, **5.** AgNPrs/EBC/Tyr, **6.** AgNPrs/EBC/AA, **7.** AgNPrs/EBC/Gly, **8.** AgNPrs/EBC/UA, **9.** AgNPrs/EBC/DA, **10.** AgNPrs/EBC/FD, **11.** AgNPrs/EBC/Ace, **12.** AgNPrs/EBC/MeOH, **13.** AgNPrs/EBC/EtOH, and **14.** AgNPrs/EBC/PBS. The ratio of solutions from No. 2 to 14 is 1:0.5:0.5 V/V/V (AgNPrs/EBC/QF (1 mM) or interference species (0.5 mM) or PBS.

Table S1. The assigned RGB codes and names for the colorimetric tests.

fig	item	RGB code	~ color name	fig	item	RGB code	~ color name	fig	item	RGB code	~ color name	
1. A	1	44, 64, 125	Marian Blue	4. A. b	5	180, 131, 89	Light Taupe	4. A. d	13	160, 141, 85	Dark Tan	
	2	154, 150, 151	Spanish Gray		6	183, 141, 77	Aztec Gold		14	160, 145, 77		
1. B	1	42, 64, 136	Marian Blue		7	181, 144, 79		5. A. a	1	34, 49, 113	Delft blue	
	2	184, 184, 184	Medium Gray		8	175, 144, 73			2	146, 99, 125	Antique Fuchsia	
1. C	1	26, 46, 133	Air Force Blue		9	190, 155, 80		5. A. b	3	89, 102, 152	Queen Blue	
	2	189, 190, 193	Medium Gray		10	185, 147, 79			1	63, 80, 149	Marian Blue	
1. D	1	33, 50, 121	Air Force Blue		11	194, 150, 90		5. A. c	2	193, 139, 145	Rosy Brown	
	2	175, 175, 175	Dark Gray		12	181, 139, 72			3	140, 134, 179	Blue Bell	
3.A. 5 Seconds	1	42, 62, 144	Marian Blue		13	197, 158, 80		5. A. d	1	35, 48, 109	Delft blue	
	2	177, 178, 184	Dark Gray		14	194, 163, 90			2	160, 109, 100	Dark Chestnut	
	3	205, 171, 119	Light French Beige		1	48, 67, 126			Marian Blue	3	106, 96, 137	Purple Navy
	4	200, 179, 171	Silver Pink		2	160, 130, 96			Pale Brown	1	32, 48, 112	Purple Navy
	5	161, 160, 169	Quick Silver		3	141, 112, 81				2	171, 119, 93	Pecan Brown
3.A. 15 min	1	34, 44, 135	Cosmic Cobalt		4	146, 116, 81		4. A. c	3	121, 97, 134	French Lilac	
	2	172, 171, 180	Dark Gray	5	169, 133, 61	Dark Goldenrod			1	37, 59, 116	Delft blue	
	3	193, 164, 117	Light French Beige	6	173, 144, 67	Aztec Gold	2		127, 85, 94	Deep Taupe		
	4	179, 164, 164	Silver Pink	7	164, 139, 68	Dark Tan	3		89, 85, 123	Purple Navy		
	5	166, 161, 162	Quick Silver	8	170, 145, 61	Brass	4		113, 83, 114	French Lilac		
4. A. a	1	64, 90, 167	Medium Sapphire	9	170, 141, 52	Dark Goldenrod	5		108, 79, 116	Old Heliotrope		
	2	183, 144, 179	Glossy Grape	10	171, 139, 56		6		114, 80, 107	Eggplant		
	3	198, 141, 148	Puce	11	177, 143, 73	Aztec Gold	7		121, 81, 96	Raspberry Glace		
	4	192, 140, 142	Rosy Brown	12	177, 139, 52	Dark Goldenrod	8		122, 83, 97	Deep Taupe		
	5	223, 167, 123	Tumbleweed	13	180, 148, 52	Satin Sheen Gold	9		126, 84, 94			
	6	228, 187, 108	Maximum Yellow Red	14	178, 145, 55	Dark Goldenrod	10		126, 86, 97	Twilight Lavender		
	7	222, 186, 108	Meat brown	1	51, 55, 120	Dark Slate Blue	11		121, 83, 108			
	8	226, 192, 100	Golden Ochre	2	155, 134, 113	Almond Frost	12		122, 87, 113			
	9	225, 192, 107		3	151, 125, 97	Pale Brown	13		122, 86, 115		Antique Fuchsia	
	10	229, 186, 118	Pale Gold	4	142, 123, 92	Shadow	14	122, 89, 119	Delft blue			
	11	228, 187, 119		5	161, 139, 78	Dark Tan	1	36, 58, 115				
	12	228, 187, 109	Maximum Yellow Red	6	155, 136, 75		6	131, 88, 98	Raspberry Glace			
	13	234, 195, 113	Topaz	7	155, 144, 73	Old Moss Green	3	90, 86, 124	Purple Navy			
	14	231, 195, 108	Golden Ochre	8	155, 143, 77	Dark Tan	4	113, 82, 113	French Lilac			
4. A. b	1	46, 64, 123	Marian Blue	9	165, 149, 71	Brass	5	112, 84, 118	Old Lavender			
	2	169, 122, 122	Burnished Brown	10	160, 141, 74	Dark Tan	6	118, 86, 106				
	3	161, 118, 97	Tawny Birch	11	166, 142, 78		7	126, 88, 96	Deep Taupe			
	4	154, 115, 101	Blast-Off Bronze	12	156, 135, 72		8	127, 87, 96				

fig	item	RGB code	~ color name	fig	item	RGB code	~ color name	fig	item	RGB code	~ color name		
8. A. b	1	62, 80, 128	Purple Navy	8. A. d	11	166, 136, 78	Dark Tan	10. A. a	7	168, 126, 104	Tawny Birch		
	2	187, 149, 104	Camel		12	168, 136, 75			Rhythm				
	3	190, 152, 105			13	171, 141, 81	Aztec Gold		9	166, 118, 106	Blast-Off Bronze		
	4	190, 155, 110			14	172, 149, 97			10	163, 114, 110	Copper Penny		
	5	187, 149, 104		1	67, 88, 145	Medium Sapphire	11		164, 116, 114	Burnished Brown			
	6	189, 152, 103		2	181, 132, 137	Rosy Brown	12		159, 112, 115	Copper rose			
	7	190, 157, 112	3	206, 167, 108	Light French Beige	13	160, 114, 117		Turkish Rose				
	8	155, 141, 158	Rose quartz	4	204, 165, 110	Camel	14		158, 112, 122	Marian Blue			
	9	193, 160, 122	Camel	5	201, 162, 107		Light French Beige		1	53, 73, 124	Light Taupe		
	10	192, 158, 121		6	200, 161, 107	Wild Blue Yonder	2		181, 135, 109				
	11	197, 167, 130	Light French Beige	7	202, 166, 111	Rosy Brown	3		180, 137, 102				
	12	202, 172, 138	Tan	8	110, 129, 171	Camel	4		180, 137, 104				
	13	198, 168, 134	Hazelnut	9	186, 136, 139		Pale Taupe		5	180, 137, 103			
-	-	-	10	198, 160, 118	Light French Beige	6	179, 139, 102						
8. A. c	1	60, 74, 119	Purple Navy	11	199, 157, 115	9. A. a	10. A. b	7	178, 139, 101	Rhythm			
	2	186, 149, 97	Camel	12	200, 158, 118			French Beige					
	3	187, 152, 96	Aztec Gold	13	198, 157, 125			Light Taupe	8	121, 114, 147			
	4	186, 153, 100	Camel	14	207, 170, 122				Light French Beige	9		173, 128, 103	
	5	185, 149, 94		1	50, 72, 122			Marian Blue	10	176, 132, 107			
	6	187, 154, 91	Aztec Gold	2	182, 146, 96			Camel	11	179, 135, 110			
	7	188, 159, 101		3	185, 162, 108			Light French Beige	12	176, 128, 108			
	8	157, 145, 147	Taupe Gray	4	184, 160, 106				Light Taupe	13		182, 133, 116	
	9	188, 159, 103	Aztec Gold	5	185, 160, 104			9. A. b		14	182, 135, 120	Tawny Birch	
	10	190, 159, 103		6	183, 158, 100				Aztec Gold	1	106, 123, 174	Glauous	
	11	191, 164, 109	Light French Beige	7	185, 167, 115				Sand	2	203, 184, 170	Coffee Foam	
	12	193, 166, 113		8	150, 145, 151				Taupe Gray	3	182, 164, 176	Rose quartz	
	13	196, 173, 123		9	171, 116, 99				Blast-Off Bronze	4	206, 181, 185	Silver Pink	
	14	208, 190, 124		Sand	10				188, 165, 113	Light French Beige	5		203, 175, 174
8. A. d	1	43, 57, 94		Delft blue	11	187, 165, 115	10. A. b		12. 4 min		6	215, 180, 184	Pale Chestnut
	2	165, 134, 81		Dark Tan	12	190, 168, 119				7	210, 181, 175	Silver Pink	
	3	164, 133, 76			13	191, 169, 119				Sand	8	180, 154, 163	Lilac Luster
	4	162, 132, 71			14	191, 173, 128					1	106, 122, 172	Glauous
	5	162, 131, 69			1	49, 67, 115				Marian Blue	2	204, 190, 177	Pale Silver
	6	158, 132, 71			10. A. a	2				166, 119, 105	Tawny Birch	3	197, 176, 173
	7	160, 136, 77		3		168, 120, 98				4		208, 183, 179	Chilean Pink
	8	138, 128, 119		4		169, 122, 101				5		213, 185, 174	
	9	160, 130, 70		5		166, 119, 101		6		221, 187, 178		Coffee Foam	
	10	164, 137, 70		6		168, 124, 99		French Beige		7		219, 194, 172	Coffee Foam
							8	207, 171, 159	Silver Pink				

fig	item	RGB code	~ color name	fig	item	RGB code	~ color name	fig	item	RGB code	~ color name			
12. 8 min	1	105, 127, 170	Glaucous	13. 6 min	7	124, 142, 187	Wild Blue Yonder	13. 20 min	5	189, 145, 144	Rosy Brown			
	2	206, 197, 185	Pale Silver		8	111, 129, 174			6	189, 141, 129				
	3	204, 183, 178	Silver Pink		1	71, 102, 165	Queen Blue		7	194, 158, 125	Pale Taupe			
	4	221, 191, 180	Chilean Pink		2	167, 126, 145	Mountbatten Pink		8	190, 153, 113	Camel			
	5	217, 188, 172	Coffee Foam		3	126, 144, 187	Wild Blue Yonder		1	98, 125, 181	Glaucous			
	6	226, 194, 180	Chilean Pink		4	131, 135, 182			2	215, 194, 173	Almond			
	7	220, 198, 175	Coffee Foam		5	158, 147, 182	Glossy Grape		3	226, 213, 161	Lion			
	8	218, 183, 161	Hazelnut		6	152, 137, 180			4	225, 209, 156				
12. 10 min	1	115, 130, 178	Wild Blue Yonder	7	151, 140, 174	5		227, 209, 159	14. 6 min	6		227, 207, 157	Lion	
	2	208, 195, 177	Coffee Foam	8	144, 133, 167	7		222, 202, 151						
	3	210, 183, 174	Silver Pink	1	68, 100, 165	Medium Sapphire	8	183, 178, 185		Lavender Gray				
	4	224, 196, 182	Chilean Pink	2	178, 136, 138	Rosy Brown	9	202, 170, 149		Hazelnut				
	5	216, 189, 172	Coffee Foam	3	123, 135, 174	Wild Blue Yonder	10	216, 197, 145		Lion				
	6	224, 196, 174		4	141, 138, 181	Blue Bell	11	221, 203, 165						
	7	223, 200, 168	Nude	5	176, 153, 182	Glossy Grape	12	221, 199, 158			Lion			
	8	217, 184, 153		6	171, 141, 172		13	226, 203, 160						
12. 15 min	1	110, 121, 166	Rhythm	7	167, 137, 161	8	163, 133, 150	Mountbatten Pink	14	216, 191, 140	14. 28 min	1	87, 107, 161	Queen Blue
	2	208, 191, 157	Khaki	1	69, 101, 169	Medium Sapphire	2	188, 146, 132	Pale Taupe	2		208, 195, 159	Lion	
	3	203, 177, 162	Hazelnut	2	188, 146, 132	Pale Taupe	3	140, 140, 175	Cool Gray	3		218, 207, 153		
	4	219, 185, 158	Nude	3	140, 140, 175	Cool Gray	4	161, 142, 172	Glossy Grape	4		218, 207, 148		
	5	217, 189, 164	Coffee Foam	4	161, 142, 172	Glossy Grape	5	179, 151, 169	Lilac Luster	5		220, 206, 145		
	6	224, 186, 154	Nude	5	179, 151, 169	Lilac Luster	6	185, 143, 162	Opera Mauve	6		222, 202, 149	Lion	
	7	217, 191, 137	Lion	6	185, 143, 162	Opera Mauve	7	179, 138, 140	Rosy Brown	7		214, 200, 151		
	8	205, 163, 121	Camel	7	179, 138, 140	8	179, 136, 132	1		64, 96, 162		Medium Sapphire		8
12. 29 min	1	105, 117, 154	Rhythm	2	189, 150, 120	Pale Taupe	2	189, 150, 120	Pale Taupe	9	201, 173, 127	Light French Beige		
	2	198, 185, 153	Khaki	3	167, 148, 168	Rose quartz	3	167, 148, 168	Rose quartz	10	215, 202, 150	Lion		
	3	195, 174, 157	Hazelnut	4	185, 153, 166	Lilac Luster	4	185, 153, 166	Lilac Luster	11	222, 209, 164			
	4	212, 185, 148	Tan	5	185, 153, 156	Rosy Brown	5	185, 153, 156	Rosy Brown	12	225, 208, 162			
	5	211, 182, 152	Hazelnut	6	202, 160, 158	Pastel pink	6	202, 160, 158	Pastel pink	13	221, 205, 154			
	6	218, 184, 139	Burlywood	7	197, 154, 136	Pale Taupe	7	197, 154, 136	Pale Taupe	14	213, 202, 138	Lion		
	7	214, 189, 129	Sand	8	186, 149, 120		1	58, 91, 155		Medium Sapphire	1		93, 118, 182	Glaucous
	13. 5 min	2	153, 133, 165	Glossy Grape	2	179, 138, 89	Camel	2	179, 138, 89	Camel	2		209, 186, 170	Coffee Foam
3		115, 132, 175	Wild Blue Yonder	3	171, 143, 158	Lilac Luster	3	171, 143, 158	Lilac Luster	3	220, 205, 186		Bone	
4		125, 137, 189		4	196, 157, 158	Rosy Brown	4	196, 157, 158	Rosy Brown	4	219, 197, 176	Coffee Foam		
5		145, 150, 190	Blue Bell	5	171, 143, 158	Lilac Luster	5	171, 143, 158	Lilac Luster	5	215, 186, 171			
6		125, 137, 187	Wild Blue Yonder	6	196, 157, 158	Rosy Brown	6	196, 157, 158	Rosy Brown	6	218, 189, 171			

fig	item	RGB code	~ color name	fig	item	RGB code	~ color name	fig	item	RGB code	~ color name	
15. 8 min	7	220, 189, 165	Coffee Foam	16. 7 min	5	225, 206, 164	Lion	17. 10 min	3	224, 203, 171	Lion	
	8	178, 170, 183	Rose quartz		6	222, 204, 156			Coffee Foam	4	217, 197, 170	Coffee Foam
	9	216, 189, 162	Coffee Foam		7	223, 201, 164			Maximum Blue Purple	5	216, 197, 174	Tan
	10	212, 180, 165	Hazelnut		8	160, 172, 206	Lilac Luster		6	211, 185, 148	Burlywood	
	11	208, 180, 168	Silver Pink		9	182, 156, 169	Coffee Foam		7	218, 190, 142	Dark Gray	
	12	209, 180, 174			Chilean Pink	10	203, 182, 161		Tan	8	170, 168, 179	Silver Pink
	13	213, 181, 170	Silver Pink		11	214, 192, 171	Coffee Foam		9	207, 173, 167	Hazelnut	
	14	204, 181, 176	Glaucous		12	220, 196, 162	Coffee Foam		10	214, 182, 156	Chilean Pink	
15. 21 min	1	102, 118, 180	Dutch White	13	217, 192, 170	Han Blue	11	215, 180, 158	Queen Blue			
	2	219, 204, 175	Lion	14	215, 191, 179	Lion	12	217, 177, 165		Khaki		
	3	212, 200, 166	Dutch White	1	80, 104, 174	Bone	13	213, 177, 160	Lion			
	4	230, 210, 173	Bone	2	218, 198, 159	Lion	14	211, 181, 170	Khaki			
	5	219, 205, 179	Coffee Foam	3	219, 211, 192	Lion	1	75, 101, 157	Queen Blue			
	6	214, 195, 167	Lion	4	221, 209, 159	Lion	2	208, 188, 151	Khaki			
	7	216, 198, 153	Pale Silver	5	212, 205, 163	Lion	3	208, 190, 151	Lion			
	8	199, 195, 192	Tan	6	219, 209, 160	Silver	4	212, 192, 155	Khaki			
	9	211, 189, 150	Sand	7	215, 204, 158	Queen Pink	5	209, 190, 157	Sand			
	10	205, 186, 144	Lion	8	189, 193, 196	Pearl	6	208, 187, 125	Dark Gray			
	11	214, 199, 166	Dutch White	9	216, 188, 192	Lion	7	208, 183, 116	Hazelnut			
	12	219, 203, 170	YInMn Blue	10	220, 212, 189	Dutch White	8	169, 170, 174	Sand			
	13	223, 209, 172	Silver Pink	11	228, 222, 196	Pearl	9	208, 168, 141	Light French Beige			
	14	221, 209, 177	Lion	12	223, 212, 166	Lion	10	203, 181, 132	Tan			
16. 7 min	1	75, 104, 173	Lion	13	227, 213, 184	Coffee Foam	11	209, 182, 130	Light French Beige			
	2	200, 175, 170	17	1	77, 102, 167	Queen Blue	12	209, 180, 136	Tan			
	3	214, 195, 162	1	2	215, 198, 169	Coffee Foam	13	214, 188, 134	Light French Beige			
	4	225, 204, 157	2				14	213, 197, 163	Lion			