A novel method for visual microarray detection of Antibiotic resistance genes

Shonglong Ma [a, b], Baowei Zhao [a, *], Rui Zhang [b, *], Hui Liu [a], Yunxia Li [b]

[1] *School of Environmental and Municipal Engineering，Lanzhou Jiaotong University，Lanzhou 730070，China;* [2] *Key Laboratory of Sensor and Sensing Technology of Gansu Province，Institute of Sensor Technology，Gansu Academy of Sciences，Lanzhou 730000，China*

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Corresponding authors

Baowei Zhao, School of Environmental and Municipal Engineering, Lanzhou Jiaotong University, Lanzhou 730000, China

E-mail address: baoweizhao@mail.lzjtu.cn

Rui Zhang, Institute of Sensor Technology, Gansu Academy of Sciences, Lanzhou 730000, China

E-mail address: ruizhanglzu@sina.com

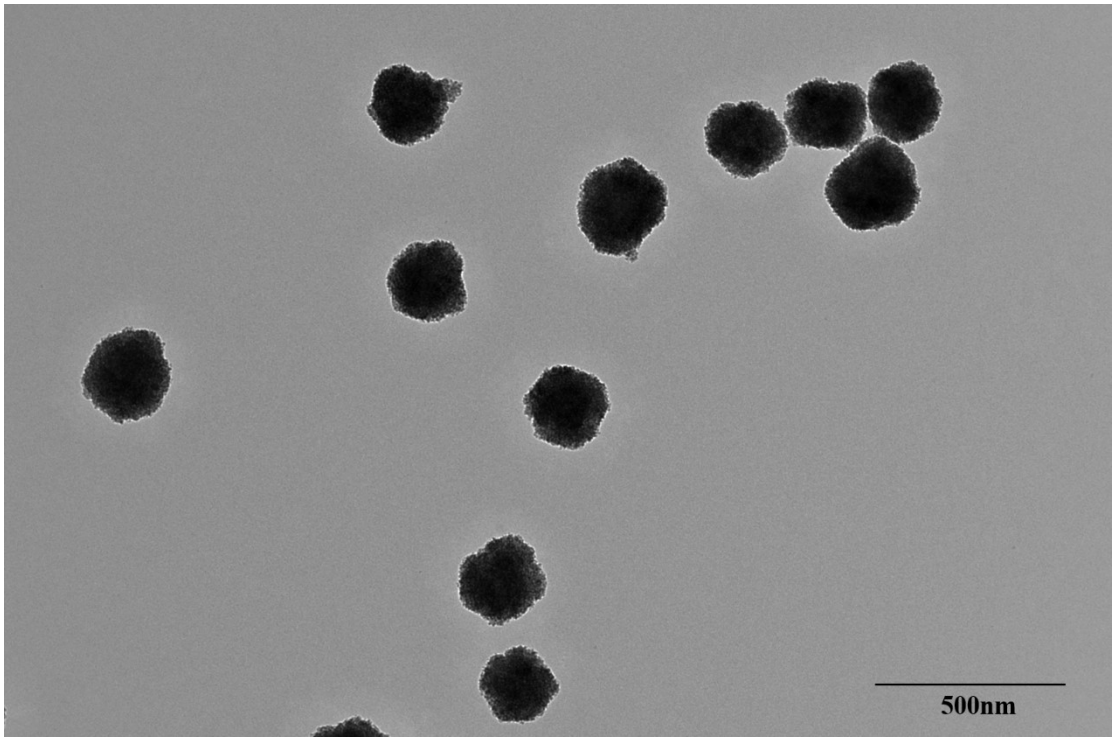

Fig. S1 TEM characterization of magnetic bead

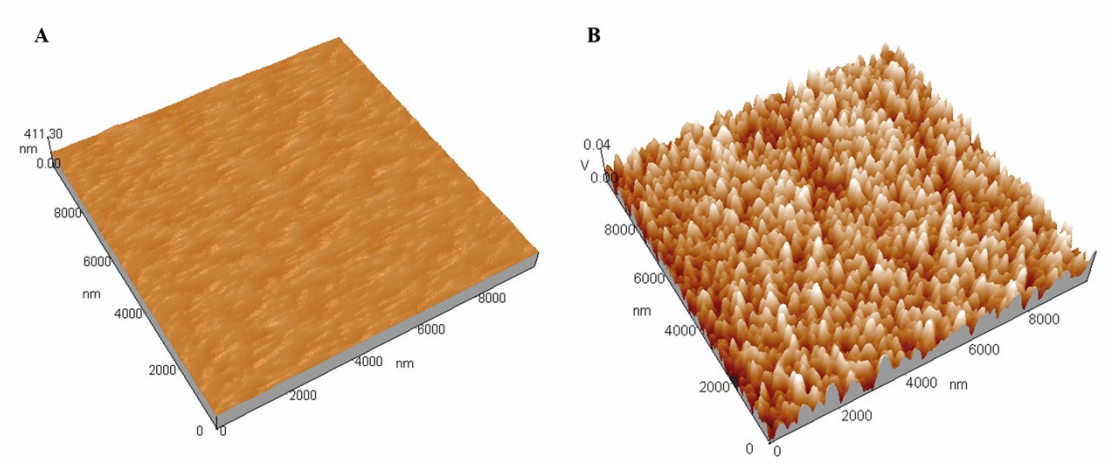

Fig. S2 Production of AFM images of aminated slides, represents untreated slides (A), represents aminated slides (B).

Table.S1 PCR Primers

	Forward Primer (5'-3')	Reverse Primer (5'-3')
Sul1	TCCTTCTTCGATGAGAGCCG	TGCTGTCGATTGAAACACGGT
macB	TCAGCGAGCTGCATTACATCGA	GGGTGTTGTGGTCAATCACCA
QepA	TTCCTGCCCGAGTATCGTGAT	TAGGCGATGTGGCCCTGG
VanR	ACAAGCGGCCTTACTATCTGTC	GATAACTGCTTCTCGTTCAGAT
TetA	ACTCATGCTCGGAATGATTG	CGTTGTTATAGAAGCCGCATAG

Table.S2 Target and probe sequences (Se is the sense chain target sequence, while Ase is the antisense chain target sequence.**)**

Name		Sequence (5'-3')
QepA	Q-Se（target sequence）	CGAGTATCGTGATCCGGACGCGGGGCACCTGGACCTG……CTCGATGGCTGCGCTGCTGGCCGGGCTGGCG
	Q-ASe	CGCCAGCCCGGCCAGCAGCGCAGCCATCGAG……CAGGTCCAGGTGCCCCGCGTCCGGATCACGATACTCG
	Q-Se-Target probe 1	COOH-TTTCAGGTCCAGGTGCCCCGCGTCCGGATCACGATACTCG
	Q-Ase-Target probe 2	COOH-TTTTTTCTCGATGGCTGCGCTGCTGGCCGGGCTGGCG
	Q-Se-Detection probe 1	SH-TTTTTTCGCCAGCCCGGCCAGCAGCGCAGCCATCGAG
	Q-Ase-Detection probe 2	SH-TTTTTCGAGTATCGTGATCCGGACGCGGGGCACCTGGACCTG
macB	m-Se	CTGCATTACATCGACAGCGCCACGCCCAACG……CCAGGACGATGACACGCGCCAGGCCCAAGTG
	m-ASe	CACTTGGGCCTGGCGCGTGTCATCGTCCTGG……CGTTGGGCGTGGCGCTGTCGATGTAATGCAG
	m-Se-Target probe 1	COOH-TTTTTTCGTTGGGCGTGGCGCTGTCGATGTAATGCAG
	m-Ase-Target probe 2	COOH-TTTTTTCCAGGACGATGACACGCGCCAGGCCCAAGTG
	m-se-Detection probe 1	SH-TTTTTTCACTTGGGCCTGGCGCGTGTCATCGTCCTGG
	m-Ase-Detection probe 2	SH-TTTTTTCTGCATTACATCGACAGCGCCACGCCCAACG
vanR	v-Se	AGGGACAAGCACACCTATCCGATTATCATG……TAATTGCTCGGGTAAAGGCCCAGTTGCGCC
	v-ASe	GGCGCAACTGGGCCTTTACCCGAGCAATTA……CATGATAATCGGATAGGTGTGCTTGTCCCT
	v-Se-Target probe 1	COOH-TTTTTTCATGATAATCGGATAGGTGTGCTTGTCCCT
	v-Ase-Target probe 2	COOH-TTTTTTTAATTGCTCGGGTAAAGGCCCAGTTGCGCC

	v-se-Detection probe 1	SH-TTTTTTGGCGCAACTGGGCCTTTACCCGAGCAATTA
	v-Ase-Detection probe 2	SH-TTTTTTAGGGACAAGCACACCTATCCGATTATCATG
tetA	t-Se	TTGCCTTCGCGACACGGGGATGGATGGCGTTCCC……AGGCAGGTGGATGAGGAACGTCAGGGGCAGC
	t-ASe	GCTGCCCCTGACGTTCCTCATCCACCTGCCT……GGGAACGCCATCCATCCCCGTGTCGCGAAGGCAA
	t-Se-Target probe 1	COOH-TTTTTGGGAACGCCATCCATCCCCGTGTCGCGAAGGCAA
	t-Ase-Target probe 2	COOH-TTTTTTAGGCAGGTGGATGAGGAACGTCAGGGGCAGC
	t-Se-Detection probe 1	SH-TTTTTTGCTGCCCCTGACGTTCCTCATCCACCTGCCT
	t-Ase-Detection probe 2	SH-TTTTTTTTGCCTTCGCGACACGGGGATGGATGGCGTTCCC
sul1	s-Se	CCGGCGCTGTCACCGCGGCGATCGAAATGCT……CCGCTCTTAGACGCCCTGTCCGATCAGATGC
	s-ASe	GCATCTGATCGGACAGGGCGTCTAAGAGCGG……AGCATTTCGATCGCCGCGGTGACAGCGCCGG
	s-Se-Target probe 1	COOH-TTTTTTAGCATTTCGATCGCCGCGGTGACAGCGCCGG
	s-Ase-Target probe 2	COOH-TTTTTTCCGCTCTTAGACGCCCTGTCCGATCAGATGC
	s-Se-Detection probe 1	SH-TTTTTTGCATCTGATCGGACAGGGCGTCTAAGAGCGG
	s-Ase-Detection probe 2	SH-TTTTTTCCGGCGCTGTCACCGCGGCGATCGAAATGCT