Electronic Supplementary Material (ESI) for Journal of Analytical Atomic Spectrometry. This journal is © The Royal Society of Chemistry 2022

## SUPPORTING INFORMATION

## Molecular laser-induced breakdown spectroscopy technique for the detection of nitrogen in waters

Shixiang Ma,<sup>a,c</sup> Lianbo Guo,\*b Daming Dong\*a

- National Engineering Research Center of Intelligent Equipment for Agriculture, Beijing Academy of Agriculture and Forestry Sciences, Beijing 100097, China
- b. Wuhan National Laboratory for Optoelectronics (WNLO), Huazhong University of Science and Technology (HUST), Wuhan, Hubei 430074, P. R. China.
- Research Center of Information Technology, Beijing Academy of Agriculture and Forestry Sciences, Being 10097

<sup>\*</sup>Corresponding author: damingdong@hotmail.com, lbguo@hust.edu.cn

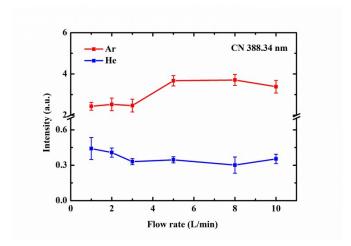


Figure S1. Effect of gas flow rates of Ar gas and He gas on the CN emission spectra of the blank sample.

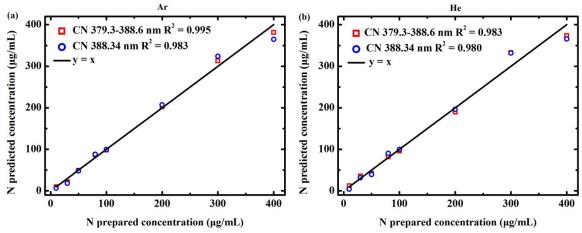


Figure S2. Calibration curves of CN head 388.34 nm and CN band 379.3-388.6 nm between the predicted concentration and the prepared concentration in Ar (a) and He (b).

Table S1. Comparison of R<sup>2</sup>, RMSECVs, and AREs of CN molecular head and CN band.

Line (nm)	gas	$R^2$	ARE	RMSECV (μg/mL)
CN 388.34 nm	Ar	0.983	13.5%	16.2
	He	0.980	15.0%	17.6
CN 379.3-388.6 nm	Ar	0.995	6.3%	9.0
	He	0.983	10.4%	15.7