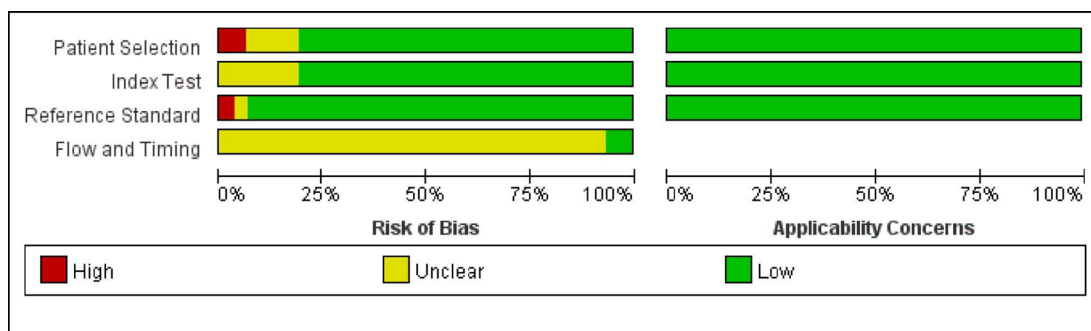Figure S1 Bar charts for Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) analysis for 31 studies of diagnostic accuracy.

Table S1 Quality evaluation

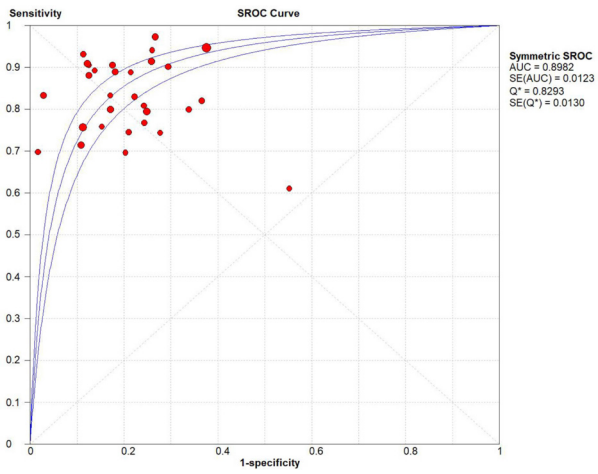| Study	Risk of bias				Applicability concerns		
	Patient selection	Index test	Reference standard	Flow and timing	Patient selection	Index test	Reference standard
Zhou, 2010	H	U	H	U	L	L	L
Chen, 2011	L	L	U	U	L	L	L
Wang, 2012	L	L	H	U	L	L	L
Wang, 2012	H	U	L	U	L	L	L
Zhu, 2013	U	U	L	U	L	L	L
Chen, 2013	L	L	L	U	L	L	L
Li, 2014	L	L	L	U	L	L	L
Cheng, 2014	L	U	L	U	L	L	L
Yang, 2014	L	U	L	U	L	L	L
Shen, 2015	L	U	L	U	L	L	L
Min, 2015	L	L	L	U	L	L	L
Zhong, 2016	L	U	L	U	L	L	L
Cheng, 2016	L	L	L	U	L	L	L
Kuang, 2016	U	L	L	U	L	L	L
He, 2016	U	L	L	U	L	L	L
Dai, 2016	U	L	L	U	L	L	L
Zhu, 2017	L	L	L	U	L	L	L
Wei, 2017	U	L	L	U	L	L	L
Huang, 2017	U	L	L	L	L	L	L
Yan, 2018	H	L	L	U	L	L	L
Yan, 2018	L	L	L	U	L	L	L
Du, 2018	L	L	L	U	L	L	L
Zeng, 2018	L	L	L	U	L	L	L
Huang, 2018	L	L	L	L	L	L	L
Xu, 2018	L	L	L	U	L	L	L
Zhang, 2018	L	L	L	U	L	L	L
Xu, 2019	L	L	L	U	L	L	L
Pan, 2019	L	L	L	U	L	L	L
Zhang, 2019	L	L	L	U	L	L	L
Wu, 2022	L	L	L	U	L	L	L
Wang, 2022	L	L	L	U	L	L	L

H, high; L, low; U, unclear.

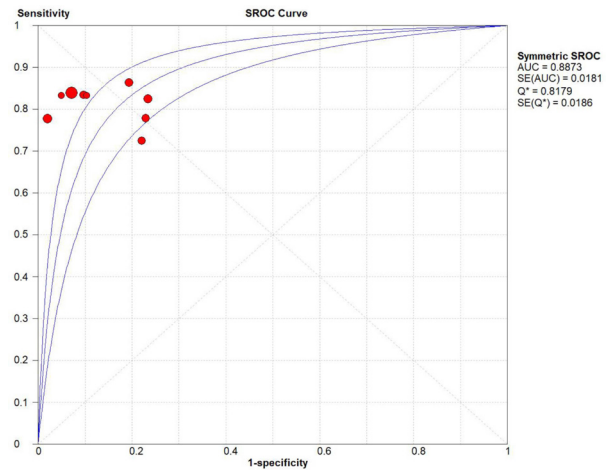**Figure S2** The ROC curve for HHUS in the diagnosis of breast cancer.

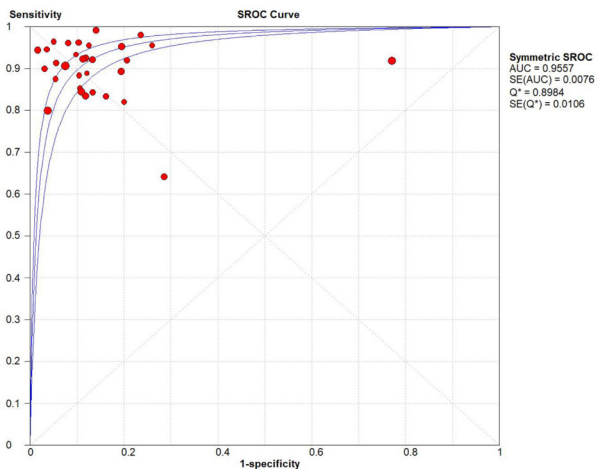**Figure S4** The ROC curve for molybdenum-target mammography in the diagnosis of breast cancer.

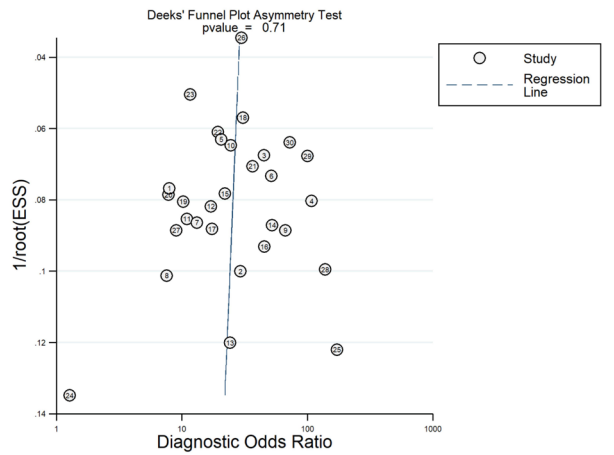**Figure S3** The ROC curve for ABVS in the diagnosis of breast cancer.

Figure S5 The funnel plot of HHUS in the diagnosis of breast cancer.