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Chen X Q Yu X W. Relocation of earthquakes in North China using absolute and relative earthquake relocation methods[J] . Journal of University of Chinese Academy of Sciences 2015 32(2) : 243-251 280.

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Relocation of earthquakes in North China using absolute and relative earthquake relocation methods

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Abstract

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Key words

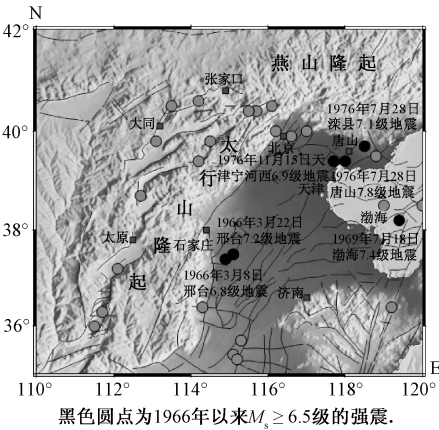
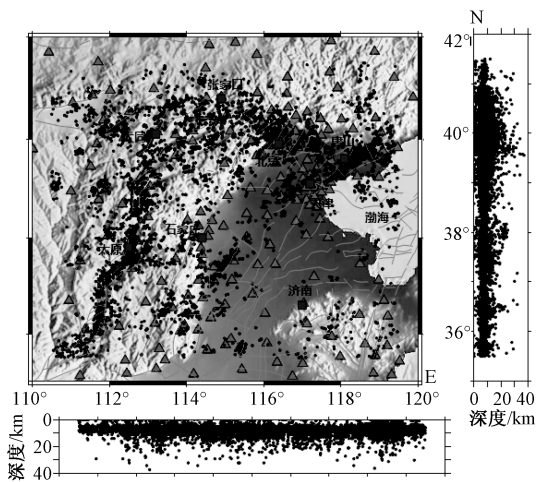


Fig. 1 Distributions of main active faults and historical strong earthquakes in North China

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圆点：初始震源；三角：地震台站；方块：主要城市；
水平方向与深度方向的比例为1:3.

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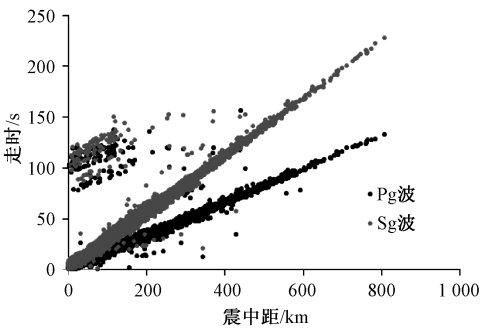
Fig.2 Distributions of seismic stations
and original hypocenters

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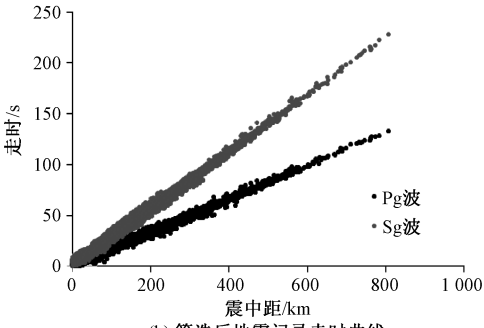
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(a) 初始地震记录走时曲线



(b) 筛选后地震记录走时曲线

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Fig.3 Travel time curves of seismic record
before (a) and after (b) selection

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Fig. 4 Distribution of hypocenters before and after absolute earthquake relocation using multiple velocity models

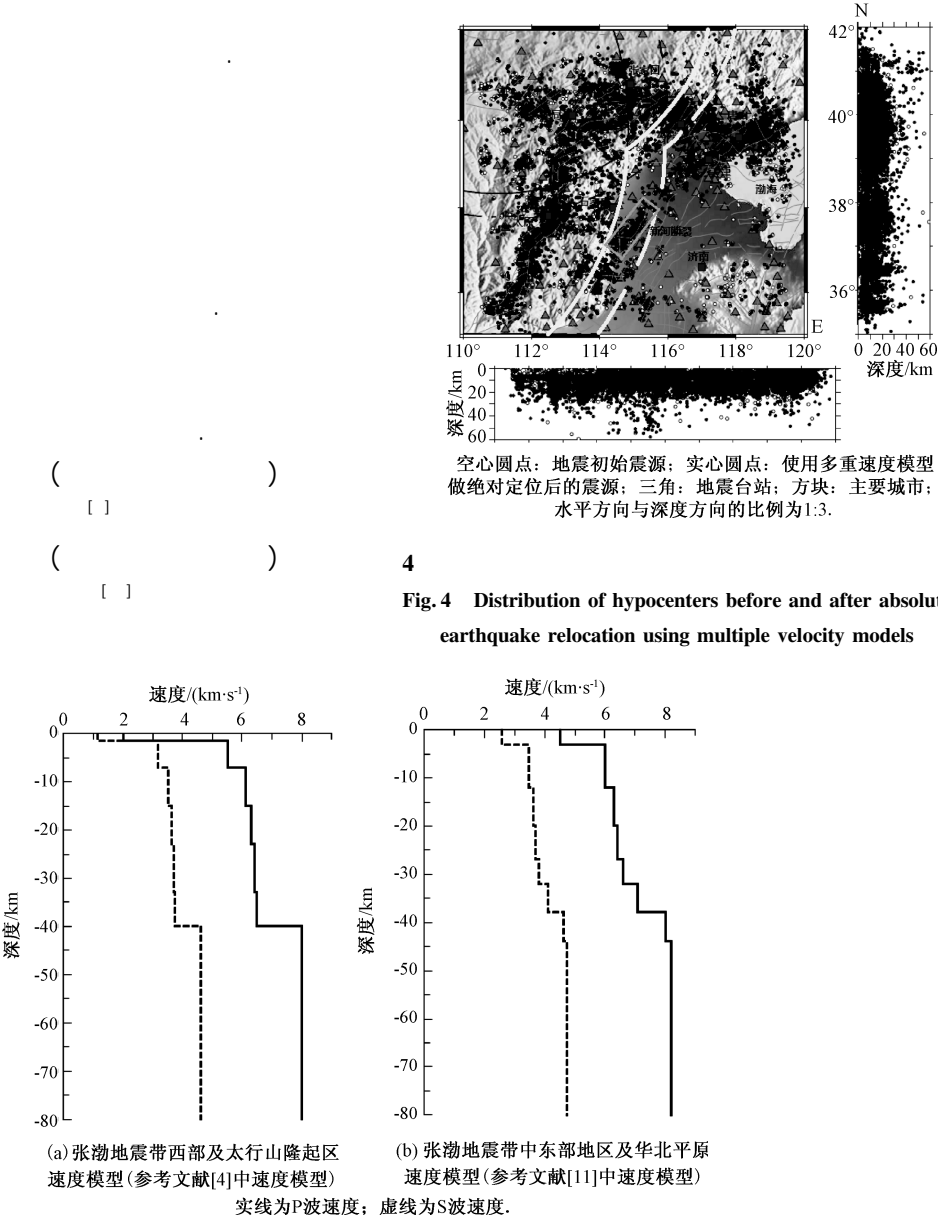
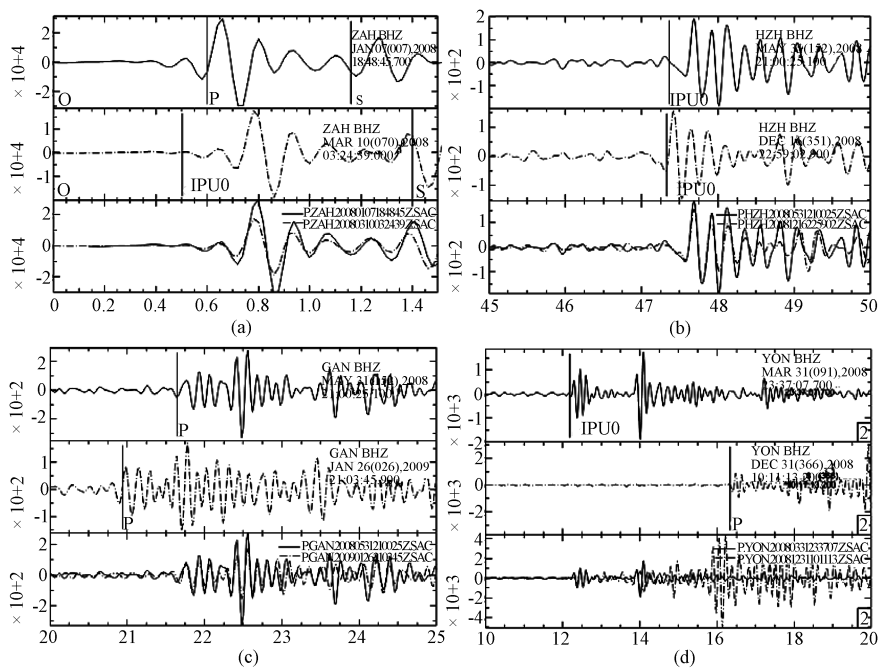
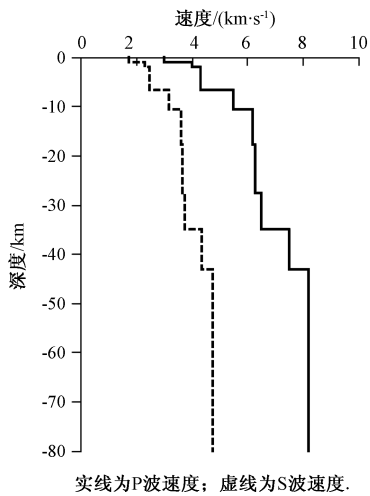


Fig. 5 Multiple velocity models in absolute earthquake relocation

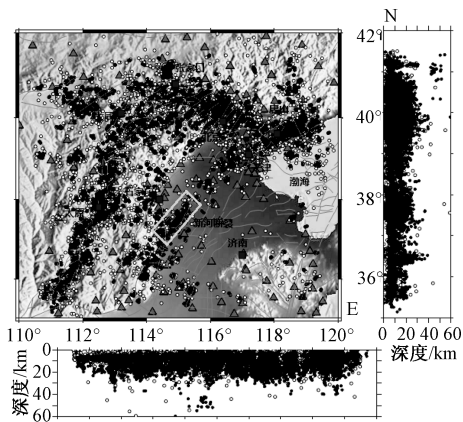


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Fig. 6 Seismograms of Pg waveform cross-correlation



实线为P波速度；虚线为S波速度.

Fig.7 Velocity model in double-difference earthquake relocation(referred to the velocity model in Ref. [2])



空心圆点：使用多重速度模型做绝对定位后的震源；
实心圆点：双差重定位后的震源；三角：地震台站；
方块：主要城市；水平方向与深度方向的比例为1:3.

Fig.8 Distributions of hypocenter before and after double-difference earthquake relocation

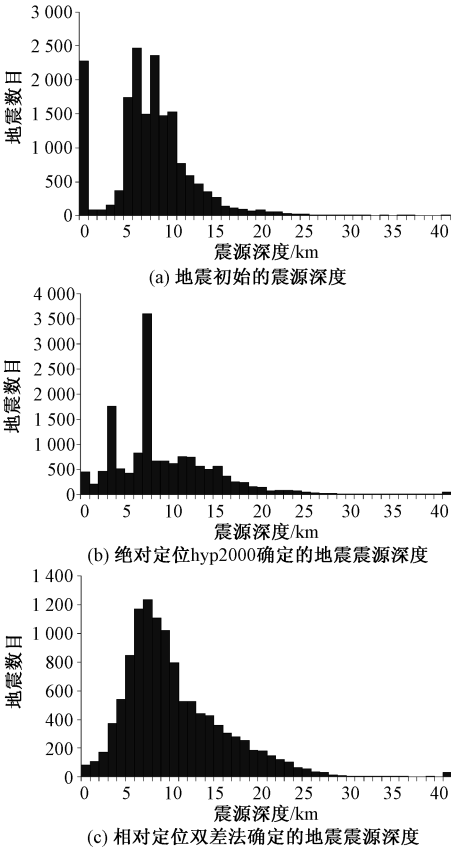


Fig.9 Histograms of focal depth distributions before and after relocation in North China

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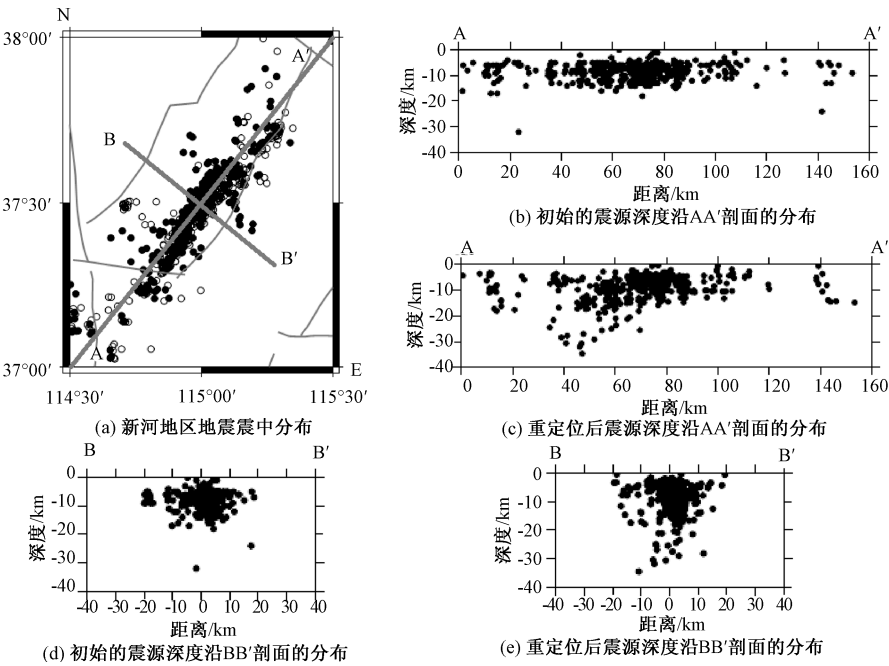
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Fig. 10 Distributions of hypocenter in Xinhe area before and after relocation

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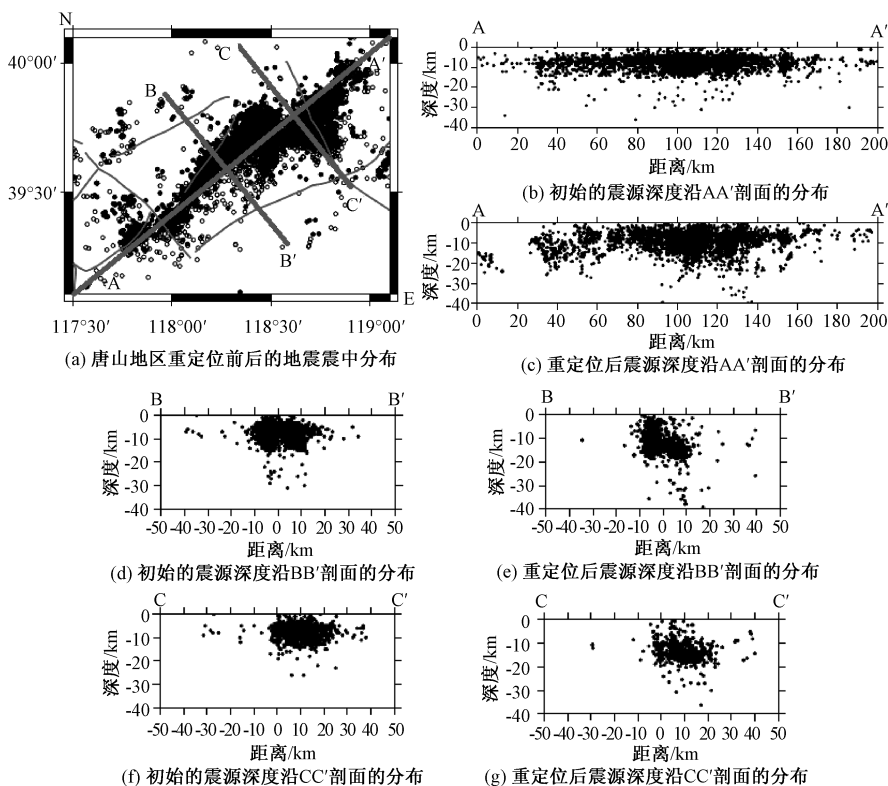
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Fig. 11 Distributions of hypocenter in Tangshan area before and after relocation

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