China Spallation Neutron Source

High Pressure Sample Environment at CSNS

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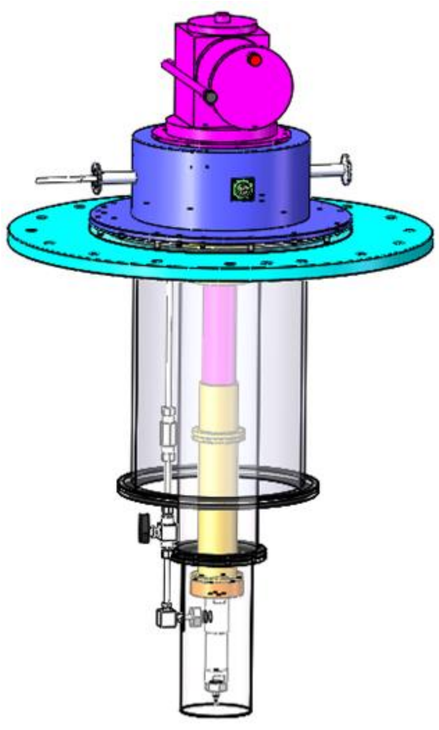
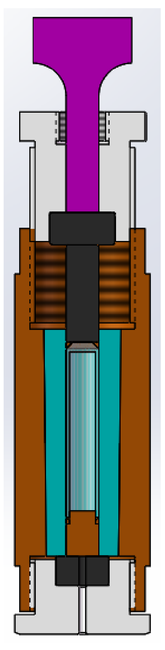
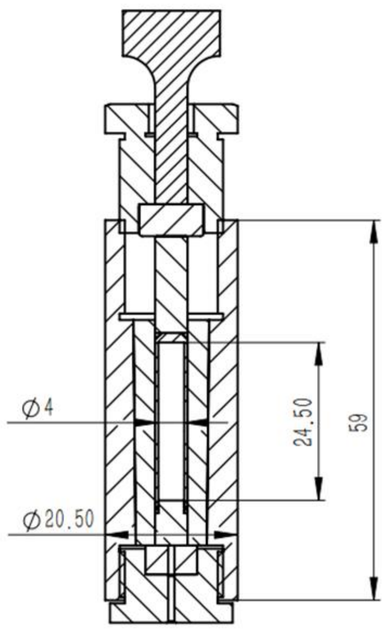
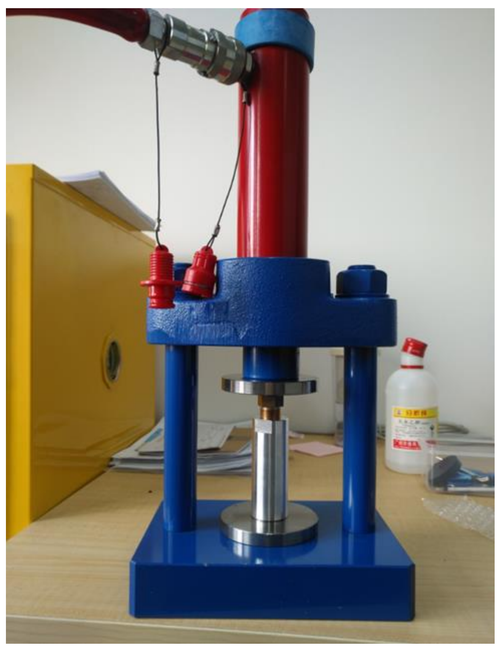
The pressure of gas handling system has been improved from 20 to 200 MPa. The gas insert can be applied for methane and inert gases at room temperature.



Design and manufacture of the bottom-loading CCR coupled with gas cells have been completed. It has been successfully employed for conducting methane hydrate research.







Model	CPC-01	CPC-02	CPC-03
Materials	CuBe	CuBe & NiCrAl	Al alloy
Sample vol. (mm^3)	Φ4.4*10	Φ4.0*25	Φ8*20
Max. Press. (GPa)	1.0	2.0	0.5

By adding a motorized positioning system for the VX4 PE cell, the position of a small sample can be easily realigned after loading force each time. Two types of anvils are available, sintered diamond/c-BN/WC single and double toroidal anvils.

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