云南特提斯带保山-腾冲地块早古生代岩浆岩

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摘　要　云南滇西地区作为东特提斯构造带的重要组成部分之一,其大地构造格局和对全球特提斯演化意义长期以来是众多研究者的关注热点。滇西特提斯构造带(包括川西南部分)是由多个地块和地块相间的造山带组成,如腾冲地体、保山地体、思茅地体及它们之间的属新特提斯带的高黎贡碰撞带和属古特提斯带的昌宁-孟连缝合带等。经受晚古生代—早中生代古特提斯和中生代—新生代新特提斯造山作用的影响,该地区经历了复杂的变质变形。由于地块内部基底出露局限和多期构造作用的叠加影响,特提斯构造带内的变质基底地体的属性和演化历史难于恢复。

位于云南西南部的腾冲-保山地块,包含保山地块,腾冲地块和其间的潞西地槽,属于缅泰马微大陆的北部。在三叠纪期间,该地块处于东部古特提斯主洋盆即昌宁-孟连古特提斯洋封闭时地前陆部位。部分学者认为,在新特提斯洋扩张时期,腾冲地块和保山地块分离,形成属于班公湖-怒江洋盆的东延分支海槽。该海槽在早侏罗世闭合,并导致腾冲地块和保山地块的碰撞,形成高黎贡碰撞构造带。以高黎贡群为典型代表的一套中-新元古代陆源沉积、大陆玄武岩、壳源花岗岩组成的角闪岩相变质岩系,类似于喜马拉雅结晶杂岩、念青唐古拉群和聂拉木群相当。基底岩石在岩石建造、构造热事件和沉积盖层等方面与冈瓦纳大陆有亲缘关系。变质基底组成部分大部分被元古代晚期-早古生代低级变质陆源沉积物所覆盖,如南部公养河群。单颗粒锆石 U-Pb 同位素稀释法定年结果表明,在保山地块南部出露有早古生代花岗岩,年龄范围大致在 490～470 Ma 之间。这些花岗岩初始 ε_{Nd}值为 -8.4～-9.3 之间,亏损地幔钕同位素模式年龄为 1.9～1.7 Ga。锆石铪同位素模式年龄集中在 1.4 Ga,其初始 ε_{Hf}值变化范围为 0～-10 之间,平均 -6 左右。一些侵入于早古生代花岗岩的晚中生代花岗岩也发现早古生代年龄的继承锆石。早古生代岩浆岩也曾在特提斯带内有报道,如 Sibumasu 和 Indochina 地块之间的 Nan-Uttaradit 缝合带内晚古生代混杂岩内的花岗岩滚石。这一早古生代岩浆作用可能暗示特提斯构造带东段和西段,如 Alpine 造山带甚至包括欧洲华力西造山带基底,在早古生代期间有相似的演化历史和属性,均源于冈瓦纳大陆北缘,可能先后从冈瓦纳大陆漂离,最终与位于北部的泛大陆拼合。

关键词　云南　特提斯带　早古生代岩浆岩　冈瓦纳大陆

Early Paleozoic Magmatism in Baoshan-Tengchong Block of the Tethyan Belt, Yunnan Province

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Abstract　Western Yunnan belongs to one of the important branches of eastern Tethyan tectonic belt and therefore bears significance of eastern Tethyan belt. The Tengchong-Baoshan block is considered to be a part of the Sibumasu micro-continent, in which the basement of Gandwana affinity is exposed. Two granites sampled from the basement section yield U-Pb zircon ages of about 490 Ma, suggesting an early Paleozoic emplacement. In addition, parts of late Cretaceous granites having crustal origin contain inherited zircon cores giving around 500 Ma ages. Granite lenses of 486 Ma were also found in late Paleozoic melange of the Nan-Uttaradit zone suturing the Sibumasu and Indochina blocks. This early Paleozoic magmatism found in the Tengchong-Baoshan block and in neighboring areas implies a comparable history of the basements between Southeast Asia and western Tethyan belt in early Paleozoic. For example, the basements outcrop in the Alpine belt and probably in the European Variscides as well, which are also considered as continental blocks rifted from Gondwana prior to or simultaneously with those of Southeast Asia.

Key words　Yunnan　Tethyan belt　early Paleozoic magmatic rocks　Gondwana

本文由国家自然科学基金委员会项目(编号 :40372106)资助。

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