

EXPLANATION

TECTONIC ENVIRONMENTS

- Basement of craton and cratonal terranes
- Passive continental margin terrane
- Continental margin turbidite terrane
- Island-arc terrane
- Back-arc terranes undivided
- Continental margin arc terrane
- Accretionary wedge terrane, predominantly turbidites
- Accretionary wedge terrane, predominantly oceanic rocks
- Accretionary wedge undivided
- Oceanic terrane
- Metamorphic terrane

OVERLAP ASSEMBLAGES

- Czv volcanic rocks (rift-related) (Neogene and Quaternary)
- Czsv sedimentary and volcanic rocks (rift-related) (Tertiary and Quaternary)
- Czs sedimentary rocks (intracontinental basins) (Cenozoic)
- CzMs sedimentary rocks (intracontinental basins) (Cenozoic and Mesozoic)
- Mzs sedimentary rocks (intracontinental basins) (Jurassic)
- Late Paleozoic (Devonian to Permian)
- Vendian and Early Paleozoic (Vendian to Silurian)
- Riphean to Silurian for craton

SYMBOLS

- Depositional contact along margin of overlap assemblage. Accretionary fault between terranes where not reactivated along post-accretionary fault or where not partly covered by overlap assemblage.
- Post-accretion major fault; sense of displacement unknown. Dashed where approximately located.
- Post-accretion thrust fault, sawteeth on upper plate. Dashed where approximately located.
- Post-accretion strike-slip fault, arrows denote relative strike-slip displacement. Dashed where approximately located; dotted where concealed.

ABBREVIATIONS FOR OVERLAP SEDIMENTARY AND VOLCANIC ASSEMBLAGES

- ag Agul molasse basin with Lochkovian-Pragian rift-related volcanic rocks (Devonian and Early Carboniferous)
- am Altai-Mongolia volcano-sedimentary belt with Emsian subduction-related volcanic rocks (Early and Middle Devonian)
- ba Biya molasse basin (Late Cambrian and Ordovician)
- bs Bokson-Sarkhoi sedimentary basin (Vendian to Middle Cambrian)
- is Intraseyan volcano-sedimentary belt with Lochkovian-Pragian volcanic rocks (Devonian and Early Carboniferous)
- kh Khmelev back-arc basin (Late Devonian and Early Carboniferous)
- khs Khemchik-Sistighem molasse basin (Late Cambrian to Silurian)
- kt Kolyvan-Tom back-arc basin (Late Devonian and Early Carboniferous)
- kz Kuznetsk molasse basin (Late Devonian to Permian)
- ma Mana sedimentary basin (Vendian to Middle Cambrian)
- mn Minusa molasse basin with Lochkovian-Pragian rift-related volcanic rocks (Devonian to Early Permian)
- mr Mirichun sedimentary basin (Vendian and Early Cambrian)
- na North Altai volcano-sedimentary belt with Early Givetian subduction-related volcanic rocks (Early and Middle Devonian)
- ok Oka molasse basin (Ordovician and Silurian)
- sa South Altai back-arc basin (Late Devonian and Early Carboniferous)
- sl Salair volcano-sedimentary belt with Early Givetian subduction-related volcanic rocks (Early and Middle Devonian)
- sm Shumak sedimentary basin (Vendian and Early Carboniferous)
- tb Telbes-Barzas volcano-sedimentary belt with Emsian and Early Givetian subduction-related volcanic rocks (Early and Middle Devonian)
- td Taidon molasse basin (Late Cambrian and Early Ordovician)
- tv Tuva molasse basin with Lochkovian-Pragian rift-related volcanic rocks (Devonian and Early Carboniferous)
- ul Uimen-Lebed volcano-sedimentary belt with Eifelian and Early Givetian subduction-related volcanic rocks (Early and Middle Devonian)

ABBREVIATIONS FOR CRATON AND TECTONOSTRATIGRAPHIC TERRANES (interpreted tectonic environment in parentheses)

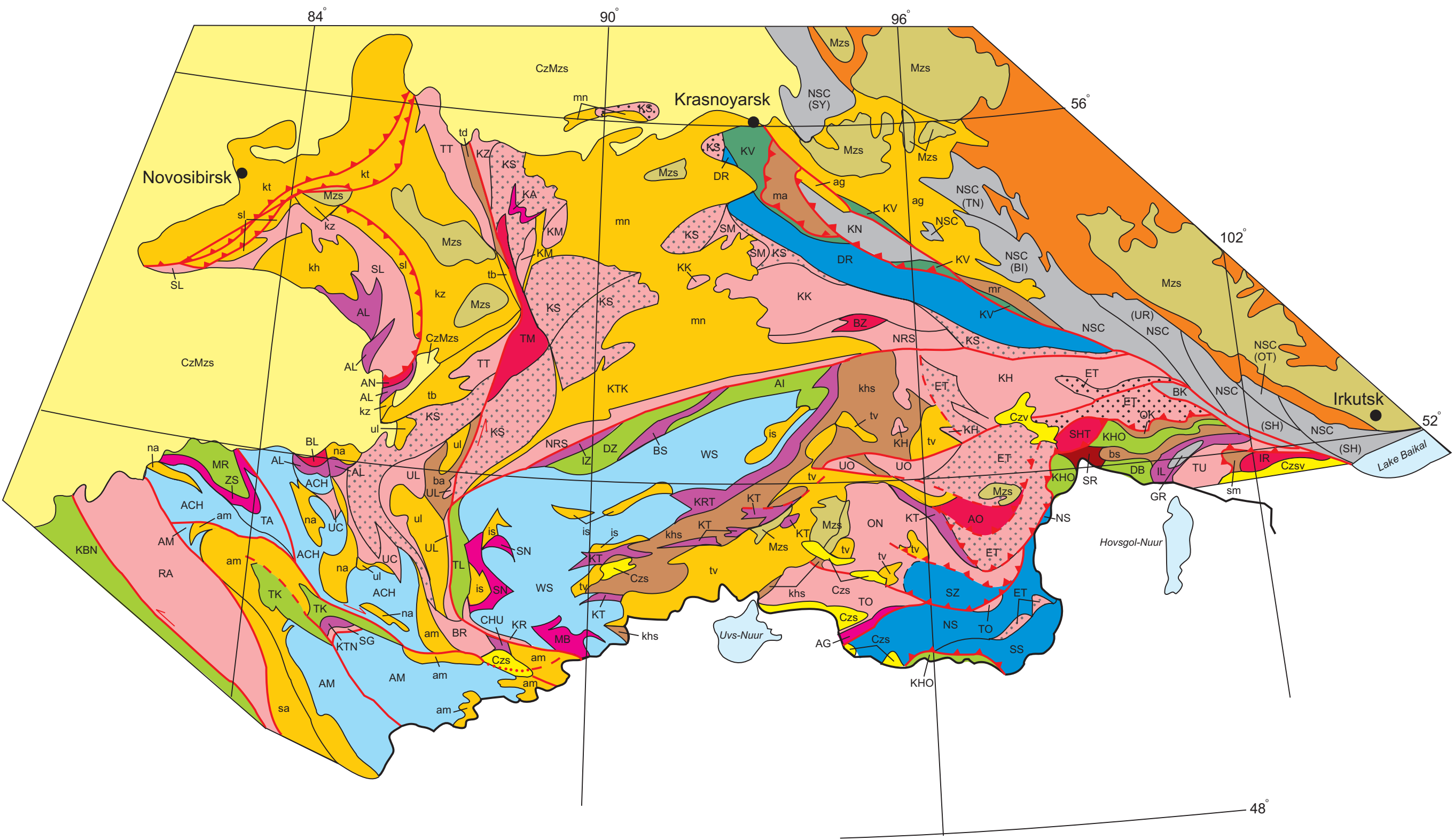
- ACH Anui-Chuya (continental margin turbidites) (Cambrian to Silurian)
- AG Agardag (oceanic) (Vendian and Early Cambrian)
- AI Amil (accretionary wedge, predominantly turbidites) (Vendian and Early Cambrian)
- AL Alambai (accretionary wedge, predominantly oceanic rocks) (Vendian and Early Cambrian)
- AM Altai-Mongolia (continental margin turbidites) (Cambrian to Silurian)
- AN Angurep (metamorphic)
- AO Agoi (metamorphic)
- (B) Biryusa block (cratonal basement) (Archean)

- BK and Early Proterozoic)
- BL Belaya-Kitoi (cratonal) (Archean? and Early Proterozoic)
- BR Belokurikha (metamorphic)
- BS Baratal (island arc) (Vendian and Early Cambrian)
- BS Borus (accretionary wedge, predominantly oceanic rocks) (Vendian and Early Cambrian)
- BZ Bazibai (metamorphic)
- CH Charysh (continental margin turbidites) (Cambrian to Silurian)
- CHU Chagan-Uzun (accretionary wedge, predominantly oceanic rocks) (Vendian and Early Cambrian)
- DB Dibi (accretionary wedge, predominantly turbidites) (Late Proterozoic?)
- DR Derba (passive continental margin) (Late Proterozoic)
- DZ Dzhebash (accretionary wedge, predominantly turbidites) (Vendian and Early Cambrian)
- ET East Tuva (back-arc terranes collage) (Vendian to Middle Cambrian)
- GR Gargan (cratonal) (Archean)
- IL Ilchir (accretionary wedge, predominantly oceanic rocks) (Late Proterozoic)
- IR Irkut (metamorphic)
- IZR Izikh (accretionary wedge terrane, predominantly oceanic rocks) (Vendian and Early Cambrian)
- KA Kuznetsk-Alatau (oceanic) (Vendian and Early Cambrian)
- KBN Kalba-Narym (accretionary wedge, predominantly turbidites) (Devonian and Early Carboniferous)
- KH Khamsara (island arc) (Vendian to Early Cambrian)
- KHO Khugein-Oka (accretionary wedge, predominantly turbidites) (Late Proterozoic)
- KK Kizir-Kazir (island arc) (Vendian and Early Cambrian)
- KM Kanim (island arc) (Vendian and Early Cambrian)
- KN Kan (cratonal) (Archean and Early Proterozoic)
- KR Kurai (island arc) (Vendian and Early Cambrian)
- KRT Kurtushiba (accretionary wedge, predominantly oceanic rocks) (Vendian and Early Cambrian)
- KS Kuznetsk-East Sayan (back-arc terranes collage) (Vendian to Middle Cambrian)
- KT Khemchik-Tapsa (accretionary wedge, predominantly oceanic rocks) (Vendian and Early Cambrian)
- KTN Kaitanak (accretionary wedge, predominantly oceanic rocks) (Vendian and Early Cambrian)
- KV Kuvai (accretionary wedge undivided) (Late Proterozoic)
- KZ Kozhukhov (island arc) (Vendian to Middle Cambrian)
- MB Mogen-Buren (oceanic) (Vendian and Early Cambrian)
- MR Maralikhha (accretionary wedge, predominantly turbidites) (Devonian?)
- NRS North Sayan (island arc) (Vendian to Middle Cambrian)
- NS North Sangilen (passive continental margin) (Late Proterozoic)
- NSC North Asian Craton (Archean and Early Proterozoic)
- ON Ondum (island arc) (Vendian and Early Cambrian)
- (OT) Onot block (cratonal basement) (Late Archean and Early Proterozoic)

- RA Rudny-Altai (island arc) (Late Devonian and Early Carboniferous)
- SG Sugash (island arc) (Cambrian)
- (SH) Sharizhalgai block (cratonal basement) (Archean)
- SHT Shutkhalai (metamorphic)
- SL Salair (island arc) (Cambrian to Early Ordovician)
- SM Sisim (island arc) (Vendian and Early Cambrian)
- SN Saratan (oceanic) (Vendian and Early Cambrian)
- SR Sarkhoi (continental margin arc) (Late Proterozoic)
- SS South Sangilen (passive continental margin) (late Proterozoic)
- (SY) South Yenisei block (cratonal basement) (Archean and Early Proterozoic)
- SZ Sizim (passive continental margin) (Late Proterozoic)
- TA Talitsk (continental margin turbidites) (Cambrian and Ordovician)
- TK Terehta (accretionary wedge, predominantly turbidites) (Vendian and Early Cambrian)
- TL Teletsk (accretionary wedge, predominantly turbidites) (Vendian and Early Cambrian)
- TM Toms (metamorphic)
- (TN) Tumanshet block (cratonal basement) (Proterozoic)
- TO Tannuola (island arc) (Vendian and Early Cambrian)
- TT Tebes-Kitat (island arc) (Early and Middle Cambrian)
- TU Tunka (island arc) (Early Paleozoic)
- TT Tebes-Kitat (island arc) (Early and Middle Cambrian)
- UC Ulus-Cherga (island arc) (Early and Middle Cambrian)
- UL Uimen-Lebed (island arc) (Vendian to Middle Cambrian)
- UO Ulugo (island arc) (Vendian to Early Cambrian)
- (UR) Urik-Iya block (cratonal basement) (Proterozoic)
- WS West Sayan (continental margin turbidites) (Cambrian to Silurian)
- ZS Zasurin (oceanic) (Late Cambrian and Early Ordovician)

REFERENCES

- This map is compiled from the following references.
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 - Berzin, N.A., and Kungurtsev, L.V., 1996, Geodynamic interpretation of Altai-Sayan Geological complexes: *Geology and Geophysics*, v. 37, no. 1, p. 56-73.
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PRELIMINARY TERRANE AND OVERLAP ASSEMBLAGE MAP OF ALTAY- SAYAN REGION, SOUTHERN SIBERIA, RUSSIA

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