|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Esteban et al. (2004) | Features / Fossil species | *Cedroxylon shakhtnaense* comb. nov. | 6. *Abies* sect. *Pseudopicea*Hickel emend. Q. P. Xiang\_ Type: *Abies spectabilis*(D. Don) Spach | *A.**chensiensis*Van Tieghem | *A. fabri*(Masters) Craib | *A. firma* Sieb.&Zucc. (microscopic observation) | *A. forrestii*Coltm.‐ Rogers | *A.**holophylla*Maxim. | *A.**homolepis*Sieb. & Zucc. | *A. pindrow*Royle |
| AT1 | Well‐defined growth rings | + | + | + | + | + | + | + | + | + |
| AT4 | Axial tracheids ofpolygonal section | + | + | + | + | + | + | + | + | + |
| AT6 | Intercellular spacespresent | + | + | ‐ | ‐ | ‐ | + | ‐ | ‐ | + |
| AT8 | Spiral thickenings present, but notin all the axial tracheids | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| AT9 | Bordered pits present on the tangential wallsof the axial tracheids | + | + | + | + | ‐ | + | + | + | + |
| AT10 | Uniseriate bordered pits on the radial wallsof the axial tracheids | + | + | + | + | + | + | + | + | + |
| AT11 | Biseriate bordered pits on the radial walls of the axial tracheids | (occasionally) | ‐ | ‐ | ‐ | + | ‐ | + | ‐ | ‐ |
| AT19 | Bars of Sanio | + | ‐ | ‐ | ‐ | + | ‐ | + | ‐ | ‐ |
| AT20 | Trabecula | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| AT21 | Crystals present in axialtracheids | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| P1 | Axial parenchymaabsent or scarce | + | + | ‐ | ‐ | + | + | + | + | + |
| P2 | Axial parenchyma with smooth transverse walls | + | ‐ | ‐ | + | ‐ | + | ‐ | + | ‐ |
| P3 | Axial parenchyma with nodular transverse walls | + | + | + | + | ‐ | ‐ | ‐ | ‐ | ‐ |
| P4 | Axial parenchyma with crystals | ‐ | ‐ | + | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| P5 | Axial parenchymawith resin | ‐ | ‐ | ‐ | ‐ | ‐ | + | ‐ | ‐ | ‐ |
| P6 | Diffuse axialparenchyma present | + | + | + | ‐ | ‐ | + | ‐ | ‐ | ‐ |
| P8 | Terminal axialparenchyma present | + / ‐ | ‐ | ‐ | + | ‐ | ‐ | ‐ | ‐ | ‐ |
| R1 | Uniseriate rays | + | + | + | + | + | + | + | + | + |
| R2 | Partially biseriate rays | (in less than 10% of the total number of the rays) | + | + | + | + | ‐ | ‐ | ‐ | ‐ |
| R4 | Ray height from 1 to 15 cells | + | + | + | + | + | + | + | + | + |
| R5 | Ray height from 16 to 30 cells | + | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| R7 | Number of rays per mm2 <70 | + | + | ‐ | ‐ | + | ‐ | ‐ | ‐ | + |
| R8 | Number of rays per mm2 between 70‐100 | ‐ | ‐ | + | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| R9 | Number of rays per mm2 >70 | ‐ | ‐ | ‐ | + | ‐ | ‐ | + | + | ‐ |
| R16 | Ray parenchyma withsmooth axial walls | + | ‐ | + | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| R17 | Ray parenchyma withnodular axial walls | + | + | ‐ | + | + | + | + | + | + |
| R19 | Ray parenchyma with pitted horizontal walls | + | + | + | + | + | + | + | + | + |
| R20 | Ray parenchyma withcrystals | ‐ | ‐ | ‐ | ‐ | + | ‐ | + | ‐ | ‐ |
| R22 | Pinoid cross field pits | ‐ | ‐ | ‐ | ‐ | ‐ | + | ‐ | ‐ | ‐ |
| R23 | Piceoid cross field pits | + | + | + | + | + | ‐ | + | + | + |
| R24 | Cupressoid cross fieldpits | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| R25 | Taxodioid cross fieldpits | + | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | + | ‐ |
| R26 | 1 to 2 pits per crossfield | + | + | + | + | + | + | + | + | + |
| R27 | 3 to 4 pits per crossfield | + | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| RC1 | Resin canals absent | + | + | + | + | + | + | + | + | + |
| RC3 | Thick‐walled epithelial cell resin canals | + | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| RC4 | Number of epithelial cells in the axial resin canals <9 | + | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |
| RC5 | Number of epithelial cells in the axial resin canals > 9 | + | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ | ‐ |