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The invention relates to processes for modifying the porous structure of activated coals impregnated with Cu(II) and their use for the treatment by catalytic oxidation of underground waters from hydrogen sulfide and sulfides.
The process for modifying the porous structure of activated coal impregnated with Cu(II) includes the mechanical agitation for one hour at room temperature of an adsorbent suspension in demineralized water with concomitant barbotage of oxygen. As a result is reduced the specific surface and volume of adsorbent micropores.
The process for treatment of underground waters from hydrogen sulfide and sulfides by catalytic oxidation includes the addition in the underground water of activated coal impregnated with Cu(II), with a modified porous structure according to the above-mentioned process, the mechanical mixing of the coal-water suspension for an hour at room temperature with concomitant barbotage of oxygen, afterwards the activated coal is separated from the treated water for a possible reuse in a new cycle of treatment.
Use of the adsorbent with the modified in that way porous structure excludes the formation of sulfur on its surface, which indicates an increase of the catalytic activity of such adsorbent.

Claims: 2
Fig.: 7