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Nota di contenuto	Introduction -- Basic ingredients of intumescent compositions -- Technology basis of the thermolytic synthesis of char formation polymeric system -- Polymer binders of flame retardant intumescent coatings -- Intumescent nanocoatings for fire safety -- Problematic issues of applying and using intumescent coatings -- Aspects of tests of intumescent coatings for woods, fabrics, plastics and composite materials -- Conclusion.
Sommario/riassunto	The book provides practical recommendations for creation of fire retardant materials with an increased service life. The enhanced fire resistance seen in these materials is based on the regularities of the chemical and physicochemical interaction of the components of intumescent composition in the process of thermolytic synthesis of heat-insulating char-foamed layers. The aim of fire protection of various objects with intumescent materials is to create a heat-insulating charred layer on the surface of structural elements; this layer can withstand high temperatures and mechanical damage which are typical during fires. The authors describe the contribution of basic components (melamine, pentaerythritol, ammonium polyphosphate), additional components (chlorinated paraffin, urea, cellulose, carbon nano additives, etc.) and polymer binders of intumescent compositions

on the process of charring. The technological aspects of manufacturing, application and operation of fire retardant intumescent compositions, which can be useful for organizations that produce and use fire retardant materials, are also described.