ABSTRACT

A mask blank has a structure in which a pattern-forming thin film and a hard mask film are formed on a substrate in this order. The hard mask film is made of a material containing silicon, oxygen, and nitrogen. The hard mask film has a nitrogen content of at least 2% and at most 18%. An Si2p narrow spectrum obtained by analyzing the hard mask film by X-ray photoelectron spectroscopy has a maximum peak at a binding energy of at least 103 eV.