Types of glass include "silicate glasses" or “silica-based glasses”, based on the chemical compound silica (silicon dioxide, or quartz), of which there are many examples. Other glasses suitable for optical applications and from which the filament may usefully be made include, but are not limited to, chalcogenide, tellurite glasses, fluoride glasses, and doped silica glasses. The glass materials may include one or more dopants for the purpose of tailoring the optical properties, such as modifying absorption/transmission or enabling optical pumping.

The methods are also generally applicable to a wide range of filaments widths or diameters, such as from typical optical fibre diameters, for example about 100 pm, up to typically cane diameters of 20 mm or more.

The various embodiments described herein are presented only to assist in understanding and teaching the claimed features. These embodiments are provided as a representative sample of embodiments only, and are not exhaustive and/or exclusive. It is to be understood that advantages, embodiments, examples, functions, features, structures, and/or other aspects described herein are not to be considered limitations on the scope of the invention as defined by the claims.