in the course of the reaction, however, has to be at least substantially removed from the system, since the yield falls with increasing operating temperature and rising residence time. In principle, it is possible to achieve rapid and comprehensive removal of the heat of reaction with appropriate heat exchangers. However, it may also be disadvantageous to cool the mixture too much prior to the metered addition of ACH, since high turbulence is needed both for mixing and for efficient heat removal. Since the viscosity of the reaction mixture rises significantly with falling temperature, there is correspondingly a fall in flow turbulence, in some cases down to the laminar range, which leads to less efficient heat removal in the heat exchanger and slower and less homogeneous mixing in the metered addition of ACH. What is required is rapid mixing of ACH and reaction mixture, since the ACH is to react before it is decomposed due to heating.

[0006] US 7,582,790, for example, claims loop reactors with various internal mixing units, which may consist of static mixers, orifice plates, venturis, jet mixers, eductors, perforated plates, spargers, agitators, rotary mixers, high-velocity circulation loops or spray nozzles. All these mixing elements have the common disadvantage that they significantly increase flow resistance in the loop reactor and lead to considerable pressure drops. The latter cause a reduced flow rate and less effective heat exchange, which leads to yield losses owing to temperature peaks in this thermally sensitive reaction. Moreover, the mixing of the reaction components take place in mixing units arranged outside the heat exchangers.

[0007] It is therefore an object of the present disclosure~~invention~~ to eliminate or at least to minimize the above-described disadvantages.

[0008] This object is achieved by a process for hydrolysis of ACH by means of sulphuric acid as a precursor for preparation of MAA or MMA in a loop reactor, characterized in that (a) at least one of the heat exchangers present in the loop reactor is equipped with turbulators and (b) at least one of the reaction components is fed into the loop reactor by means of a metering ring.

[0008a] In a first aspect, there is provided a process for hydrolysis of acetocyanohydrin by means of sulphuric acid as a precursor for preparation of methyl methacrylate in a loop reactor, characterized in that (a) at least one of the heat exchangers present in the loop reactor is equipped with turbulators and (b) at least one of the reaction components is fed into the loop reactor by means of a metering

ring, wherein the metering ring is installed externally and immediately upstream of a pump in the loop reactor, and the heat exchanger(s) equipped with tabulators are positioned downstream of the metered addition of sulphuric acid and of ACH in flow direction.

[0009] The inventive turbulators are described and thus disclosed in EP 061154. Since they are installed into the tubes of a heat exchanger, they have the advantage primarily of enabling good heat exchange, since they reduce the tendency to form a laminar flow. The use of these turbulators is described, for example, in WO 2007/075064 for a heterogeneous gas phase oxidation. It was surprising to the