



Fig. 3. Effect of pH (A, B) and temperature (C, D) on amyolytic activities from *T. lanuginosus*.
 —○—: ATCC 28083; —△—: ATCC 34626; —□—: ATCC 44008

The crude ferment broth from different strains of *Thermomyces lanuginosus* showed different optimal temperature values at pH optimum. In case of α -amylase the optimal temperature was between 65–70 °C (Fig. 3C), depending on the strain used. With respect to glucoamylase it was 70 °C (Fig. 3D). This means that the optimal temperature of glucoamylase originating from *Thermomyces lanuginosus* is 10 °C higher than that from *Aspergillus niger* (60 °C, NIGAM & SINGH, 1995). Some glucoamylase preparations produced from *Aspergillus niger* have an optimal temperature at 70 °C (SAHA & ZEIKUS, 1989), but they are not very stable (MUNCH & TRITSCH, 1990). This optimum was exactly the same as that found by BASAVESWARA RAO and co-workers (1981) and HAASUM and co-workers (1991). The activities of both amyolytic enzymes have decreased drastically above 75 °C.