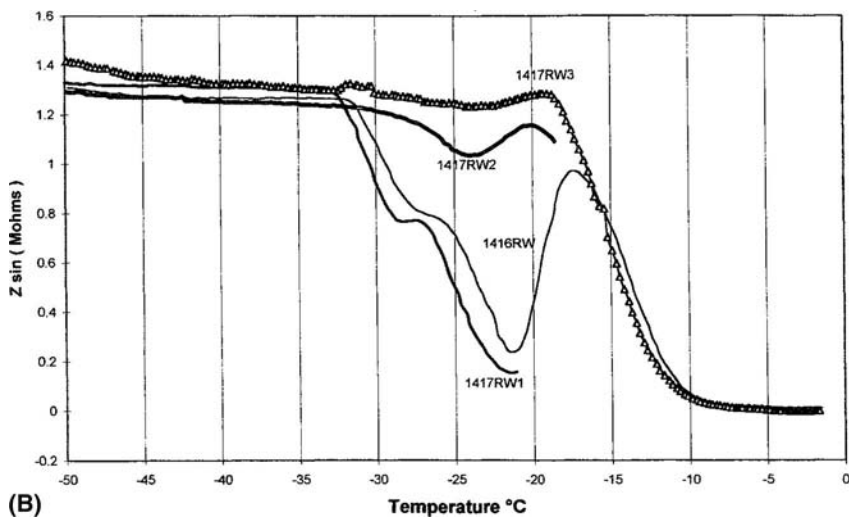


(A)



(B)

FIGURE 13 (A, B) Recombinant glycoprotein-Mol-2. 1416RW: In a preliminary analysis two slight exothermic phenomena were observed by DTA at -25.5°C and -16.4°C , followed by a progressive melting starting around -8°C . However, the electrical measurements already showed a marked decrease in rigidity starting at -32°C . 1417RW1: "Thermal treatment" was applied by cooling the solution down from -20°C to -50°C , then rewarming to -21°C . The thermal curve is almost identical to the 1416RW and the first exothermic peak shows up. The system is then cooled back from -21°C to -50°C and rewarmed again to -18°C . 1417RW2 shows, during the second rewarming, that the first exothermic phenomenon has disappeared. As a consequence, the $Z \sin \varphi$ is by far higher 1417RW2 and "rigidity" good until -20°C . To improve, once more, the low-temperature stability of the system, it is cooled back a third time from -18°C to -50°C and then rewarmed for analysis. 1417RW3 shows that, in the course of the third rewarming, all "accidents" have disappeared on the DTA curve, which only indicates progressive melting from -8°C upward. Moreover, the stability of the frozen structure has been substantially improved since now $Z \sin \varphi$ remains almost constant during the whole period and only starts to drop at -19°C instead of -32°C without thermal treatment. It is then easy to freeze-dry the solution at -20°C or slightly below. *Abbreviation:* DTA, differential thermal analysis.