Pain is a common global health problem.Mathematical simultaneous equa- tions and ratio difference methods were developed to resolve the spectral overlap and quantify the drugs in combination.Currently, there is a global trend to reduce the use of opioids and develop alternative multimodal analgesia (opioid and non-opioid analgesic) approaches that maximize the analgesic ef- fect, decrease doses, and thus minimize the side effects (3-5).Similarly, different analytical tech- niques have been reported for the quantification of TMD alone in its pharmaceutical formulations and plasma including HPLC, electrochemical, spectrofluorometric and spectrophotometric methods (16-25).SeglentisVR is the first in class multimodal analgesia tablets development by ESTEVE Pharmaceuticals (Barcelona, Spain) that contain 56 mg celecoxib and 44 mg tramadol per tablet.Different analytical techniques have been described for the quantification of CLX alone in its pharmaceutical formulations and plasma including HPLC, spectrofluorometric, and spectro- photometric methods (8-15).Tramadol (TMD), Figure 1(b), is an opioid analgesic that is a partial agonist for the mu-opioid receptor and inhibits serotonin and norepinephrine reuptake.Celebrex (CLX), Figure 1(a), is a nonsteroidal anti- inflammatory drug (NSAID) that selectively inhibits the COX-2 enzyme which is responsible for pain and inflammation.Therefore, our intention was to develop the first spectro- photometric methods for concurrent quantification of CLX and .TMD in tablet dosage form