Topology Analysis * (v1.5)

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^{*}This package is implemented with reference to a program called Topo, which is developed by Prof. Shuxian Du from Zhengzhou University in China and has been widely used by people in BESIII collaboration. Several years ago, when I was a PhD student working on BESIII experiment, I learned the idea of topology analysis and a lot of programming techniques from the Topo program. So, I really appreciate Prof. Du's original work very much. To meet my own needs and to practice developing analysis tools with C++, ROOT and LaTex, I wrote the package from scratch. At that time, the package functioned well but was relatively simple. At the end of last year (2017), my co-supervisor, Prof. Chengping Shen reminded me that it could be a useful tool for Belle II experiment as well. So, I revised and extended it, making it more well-rounded and suitable for Belle II experiment. Here, I would like to thank Prof. Du for his original work, Prof. Shen for his suggestion and encouragement, and Wencheng Yan, Sen Jia, Yubo Li, Suxian Li, Longke Li, Guanda Gong, Junhao Yin, Xiaoping Qin, Xiqing Hao, HongPeng Wang, JiaWei Zhang for their efforts in helping me test the program.

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List of Tables

1	Event trees and their respective initial-final states	
2	Event initial-final states	2
3	Signal particles	29

Table 1: Event trees and their respective initial-final states.

	Table 1: Event trees and their respective initial-inial states.	1	
index	event tree (event initial-final states)	nEvts	nCmltEvts
1	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{0}\rho^{0}\pi^{+}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{+}D^{0}D_{s}^{*-}, \rho^{0} \to \pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$ $D^{0} \to \rho^{+}K^{*-}, D_{s}^{*-} \to D_{s}^{-}\gamma, \bar{D}^{0} \to \eta\eta', \rho^{+} \to \pi^{0}\pi^{+}, K^{*-} \to \pi^{-}\bar{K}^{0}, D_{s}^{-} \to e^{-}\bar{\nu}_{e}\phi,$ $\eta \to \pi^{0}\pi^{0}, \eta' \to \pi^{0}\pi^{0}\eta, \bar{K}^{0} \to K_{S}, \phi \to K^{+}K^{-}, \eta \to \gamma\gamma, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma$	1	1
2	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{-}K^{*+}J/\psi, \bar{B}^{0} \to \pi^{0}\pi^{-}D^{*+}, K^{*+} \to \pi^{+}K^{0}, J/\psi \to \pi^{+}K^{0}K^{*-},$ $\pi^{0} \to e^{+}e^{-}, D^{*+} \to \pi^{+}D^{0}, K^{0} \to K_{S}, K^{0} \to K_{S}, K^{*-} \to \pi^{-}\bar{K}^{0}, D^{0} \to \pi^{+}\pi^{-}\bar{K}^{*},$ $K_{S} \to \pi^{0}\pi^{0}, K_{S} \to \pi^{+}\pi^{-}, \bar{K}^{0} \to K_{S}, \bar{K}^{*} \to \pi^{+}K^{-}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{+}e^{-}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma)$	1	2
3	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{*+}\bar{D}^{*-}D^{*0}, \bar{B}^{0} \to \pi^{0}\rho^{0}\rho^{-}\eta D^{+}, K^{*+} \to \pi^{+}K^{0}, \bar{D}^{*-} \to \pi^{0}D^{-},$ $D^{*0} \to \pi^{0}D^{0}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{-} \to \pi^{0}\pi^{-}, \eta \to \gamma\gamma, D^{+} \to e^{+}\nu_{e}\bar{K}^{0}, K^{0} \to K_{L},$ $D^{-} \to K_{L}\pi^{-}\pi^{-}K^{+}, D^{0} \to \pi^{0}\eta K_{S}, \bar{K}^{0} \to K_{S}, \eta \to \pi^{0}\pi^{+}\pi^{-}, K_{S} \to \pi^{+}\pi^{-}, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{+}\nu_{e}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	3
4	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{*-}a_{1}^{+}, \bar{B}^{0} \to \pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}D^{*+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, a_{1}^{+} \to \pi^{0}\rho^{+},$ $D^{*+} \to \pi^{+}D^{0}, \bar{D}^{0} \to \pi^{-}K^{+}\eta', \rho^{+} \to \pi^{0}\pi^{+}, D^{0} \to e^{+}\nu_{e}\pi^{-}, \eta' \to \pi^{+}\pi^{-}\eta, \pi^{0} \to e^{+}e^{-},$ $\eta \to \gamma\gamma$ $(e^{+}e^{-} \to e^{+}e^{+}e^{-}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma)$	1	4
5	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}B^{0}, B^{0} \rightarrow D^{-}D'_{s1}^{+}, B^{0} \rightarrow \pi^{0}\rho^{+}\omega\bar{D}^{*-}, D^{-} \rightarrow \pi^{0}\pi^{-}, D'_{s1}^{+} \rightarrow \pi^{0}D_{s}^{*+},$ $\rho^{+} \rightarrow \pi^{0}\pi^{+}, \omega \rightarrow \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, D_{s}^{*+} \rightarrow D_{s}^{+}\gamma, \bar{D}^{0} \rightarrow K_{L}\omega, D_{s}^{+} \rightarrow e^{+}\nu_{e}\phi,$ $\omega \rightarrow \pi^{0}\gamma, \phi \rightarrow K^{+}K^{-}$ $(e^{+}e^{-} \rightarrow e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	5
6	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{+}\pi^{-}D^{+}D_{s}^{-}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D^{+} \to e^{+}\nu_{e}\pi^{+}K^{-}, D^{-}S^{-} \to \pi^{0}\pi^{-}\omega, \bar{D}^{0} \to \omega K_{S}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, K_{S} \to \pi^{+}\pi^{-}K^{-}K^{-}K^{-}K^{-}K^{-}K^{-}K^{-}K$	1	6
7	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{0}\pi^{+}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}K^{*}K^{-}D^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, K^{*} \to \pi^{-}K^{+},$ $D^{+} \to \pi^{0}\pi^{+}\eta', \bar{D}^{0} \to \mu^{-}\bar{\nu}_{\mu}K^{+}, \eta' \to \pi^{+}\pi^{-}\eta, \eta \to \pi^{0}\pi^{0}\pi^{0}$ $(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	7
8	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}B^{0}, B^{0} \rightarrow \tau^{+}\nu_{\tau}\bar{D}^{*-}, B^{0} \rightarrow \pi^{0}\pi^{+}\eta\eta D^{-}, \tau^{+} \rightarrow e^{+}\nu_{e}\bar{\nu}_{\tau}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0},$ $\eta \rightarrow \gamma\gamma, \eta \rightarrow \gamma\gamma, D^{-} \rightarrow \pi^{0}\pi^{-}K^{*}, \bar{D}^{0} \rightarrow \pi^{0}\pi^{+}\pi^{-}K^{*}, K^{*} \rightarrow \pi^{0}K^{0}, K^{*} \rightarrow \pi^{0}K^{0},$ $K^{0} \rightarrow K_{S}, K^{0} \rightarrow K_{L}, K_{S} \rightarrow \pi^{+}\pi^{-}$ $(e^{+}e^{-} \rightarrow e^{+}\nu_{e}\nu_{\tau}\bar{\nu}_{\tau}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	8
9	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{+}\pi^{+}\pi^{-}\bar{D}^{*-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, \bar{D}^{*-} \to \pi^{0}D^{-}, D^{*+} \to \pi^{+}D^{0},$ $D^{-} \to \pi^{-}\omega K^{0}, D^{0} \to K_{L}\omega, \omega \to \pi^{0}\pi^{+}\pi^{-}, K^{0} \to K_{S}, \omega \to \pi^{0}\pi^{+}\pi^{-}, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	9
10	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{0}D^{-}D^{*+}, \bar{B}^{0} \to D^{*+}D^{*-}_{s}, K^{0} \to K_{S}, D^{-} \to \pi^{-}\pi^{-}K^{+},$ $D^{*+} \to \pi^{0}D^{+}, D^{*+} \to \pi^{0}D^{+}, D^{*-}_{s} \to D^{-}_{s}\gamma, K_{S} \to \pi^{+}\pi^{-}, D^{+} \to \mu^{+}\nu_{\mu}\bar{K}^{0}, D^{+} \to \pi^{+}\eta',$ $D^{-}_{s} \to K^{*}K^{*-}, \bar{K}^{0} \to K_{L}, \eta' \to \rho^{0}\gamma, K^{*} \to \pi^{-}K^{+}, K^{*-} \to \pi^{0}K^{-}, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	10

index	event tree (event initial-final states)	nEvts	nCmltEvts
11	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}\bar{D}^{*-}, \bar{B}^{0} \to \rho^{0}K^{0}K^{*-}D^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \rho^{0} \to \pi^{+}\pi^{-}, K^{0} \to K_{L}, K^{*-} \to \pi^{0}K^{-}, D^{+} \to \mu^{+}\nu_{\mu}\bar{K}^{0}, \bar{D}^{0} \to \rho^{-}K^{*+}, \bar{K}^{0} \to K_{L}, \rho^{-} \to \pi^{0}\pi^{-}, K^{*+} \to \pi^{0}K^{+} $ $(e^{+}e^{-} \to \mu^{+}\mu^{+}\nu_{\mu}\nu_{\mu}K_{L}K_{L}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	11
12	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{-}K^{+}J/\psi, \bar{B}^{0} \to D^{+}D_{s}^{*-}, \rho^{-} \to \pi^{0}\pi^{-}, J/\psi \to e^{+}e^{-},$ $D^{+} \to \pi^{0}\pi^{+}K_{S}, D_{s}^{*-} \to D_{s}^{-}\gamma, K_{S} \to \pi^{0}\pi^{0}, D_{s}^{-} \to \tau^{-}\bar{\nu}_{\tau}, \tau^{-} \to \mu^{-}\bar{\nu}_{\mu}\nu_{\tau}$ $(e^{+}e^{-} \to e^{+}e^{-}\mu^{-}\bar{\nu}_{\mu}\nu_{\tau}\bar{\nu}_{\tau}\pi^{+}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	12
13	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\pi^{-}K^{0}D^{0}\bar{D}^{0}, \bar{B}^{0} \to \pi^{0}\pi^{+}\rho^{-}\rho^{-}D^{+}, K^{0} \to K_{L}, D^{0} \to K_{S}\eta',$ $\bar{D}^{0} \to \rho^{-}K^{*+}, \rho^{-} \to \pi^{0}\pi^{-}, \rho^{-} \to \pi^{0}\pi^{-}, D^{+} \to \mu^{+}\nu_{\mu}\bar{K}^{0}, K_{L} \to \pi^{0}\pi^{0}\pi^{0}, K_{S} \to \pi^{+}\pi^{-},$ $\eta' \to \pi^{+}\pi^{-}\eta, \rho^{-} \to \pi^{0}\pi^{-}, K^{*+} \to \pi^{0}K^{+}, \bar{K}^{0} \to K_{L}, \eta \to \pi^{0}\pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	13
14	$(e^{+}e^{-} \to \mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\eta\bar{D}^{*-}, \bar{B}^{0} \to K^{0}K^{*-}D^{*+}, \eta \to \pi^{0}\pi^{0}, \bar{D}^{*-} \to \pi^{0}D^{-},$ $K^{0} \to K_{S}, K^{*-} \to \pi^{0}K^{-}, D^{*+} \to \pi^{+}D^{0}, D^{-} \to \mu^{-}\bar{\nu}_{\mu}K^{0}, K_{S} \to \pi^{+}\pi^{-}, D^{0} \to \pi^{0}\rho^{0},$ $K^{0} \to K_{L}, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	14
15	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{+}D^{-}, \bar{B}^{0} \to \pi^{-}K^{+}K^{-}D^{*+}, \rho^{+} \to \pi^{0}\pi^{+}, D^{-} \to K_{S}a_{1}^{-},$ $D^{*+} \to \pi^{+}D^{0}, K_{S} \to \pi^{0}\pi^{0}, a_{1}^{-} \to \pi^{0}\rho^{-}, D^{0} \to \pi^{0}\pi^{+}K^{-}, \rho^{-} \to \pi^{0}\pi^{-}$ $(e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	15
16	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{0}\pi^{+}\eta\bar{D}^{*-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \eta \to \pi^{0}\pi^{0}\pi^{0}, \bar{D}^{*-} \to \pi^{0}D^{-},$ $D^{*+} \to \pi^{0}D^{+}, D^{-} \to \pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}, D^{+} \to \mu^{+}\nu_{\mu}\bar{K}^{*}, \bar{K}^{*} \to \pi^{+}K^{-}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\pi^{+}K^{*-}D^{0}\bar{D}^{*0}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, K^{*-} \to \pi^{-}\bar{K}^{0},$	1	16
17	$D^{0} \to K_{L}\pi^{+}\pi^{-}, D^{*0} \to \pi^{0}D^{0}, D^{0} \to \mu^{-}\bar{\nu}_{\mu}K^{+}, K^{0} \to K_{S}, D^{0} \to \pi^{+}\pi^{-}K_{S}K_{S}, K_{S} \to \pi^{+}\pi^{-}, K_{S} \to \pi^{0}\pi^{0}, K_{S} \to \pi^{+}\pi^{-} (e^{+}e^{-} \to e^{+}\nu_{e}\mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	17
18	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to K^{*}D^{-}D^{*+}, \bar{B}^{0} \to \pi^{0}\eta\bar{K}^{0}K^{-}D_{s}^{+}, K^{*} \to \pi^{0}K^{0}, D^{-} \to \pi^{-}\pi^{-}K^{+},$ $D^{*+} \to \pi^{+}D^{0}, \eta \to \gamma\gamma, \bar{K}^{0} \to K_{L}, D_{s}^{+} \to \mu^{+}\nu_{\mu}\phi, K^{0} \to K_{S}, D^{0} \to \pi^{0}\pi^{+}K^{*-},$ $\phi \to K^{+}K^{-}, K_{S} \to \pi^{0}\pi^{0}, K^{*-} \to \pi^{-}\bar{K}^{0}, \bar{K}^{0} \to K_{L}$ $(e^{+}e^{-} \to \mu^{+}\nu_{\mu}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	18
19	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{*-}D_{s}^{*+}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D_{s}^{*+} \to D_{s}^{+}\gamma,$ $D^{*+} \to \pi^{+}D^{0}, \bar{D}^{0} \to \pi^{0}\pi^{+}\pi^{-}K_{S}, D_{s}^{+} \to \rho^{+}\eta, D^{0} \to \pi^{+}\eta K^{-}, K_{S} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+},$ $\eta \to \pi^{0}\pi^{0}\pi^{0}, \eta \to \pi^{0}\pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma$	1	19
20	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \mu^{+}\nu_{\mu}D_{2}^{*-}, B^{0} \to \pi^{0}\pi^{+}\pi^{+}\pi^{-}\rho^{-}\bar{D}^{*0}, D_{2}^{*-} \to \pi^{-}\bar{D}^{*0}, \rho^{-} \to \pi^{0}\pi^{-}, \bar{D}^{*0} \to \pi^{0}\bar{D}^{0}, \bar{D}^{*0} \to \pi^{0}\bar{D}^{0}, \bar{D}^{0} \to K^{+}a_{1}^{-}, \bar{D}^{0} \to \pi^{0}K_{L}\pi^{+}\pi^{-}, a_{1}^{-} \to \rho^{0}\pi^{-}, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	20

index	event tree	nEvts	nCmltEvts
IIIdex	(event initial-final states)	1111100	IICIIIICEV 63
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^0\bar{B}^0, \bar{B}^0 \to \mu^-\bar{\nu}_\mu D^{*+}, \bar{B}^0 \to \pi^0\bar{K}^*K^+K^-, D^{*+} \to \pi^+D^0, \bar{K}^* \to \pi^0\bar{K}^0,$		
21	$D^0 o\pi^0 K_L, ar K^0 o K_L$	1	21
	$(e^+e^- \to \mu^- \bar{\nu}_\mu K_L K_L \pi^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\pi^{+}\omega K^{0}K^{*-}\bar{D}^{*-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, K^{0} \to K_{S},$		
22	$K^{*-} \to \pi^0 K^-, \bar{D}^{*-} \to \pi^0 D^-, D^{*+} \to \pi^0 D^+, K_S \to \pi^+ \pi^-, D^- \to \pi^- \pi^- K^+, D^+ \to K_L a_1^+,$	1	22
22	$K_L \to \mu^+ \nu_\mu \pi^-, a_1^+ \to \pi^+ f_0(600)$	1	22
	$(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}f_{0}(600)\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$\frac{(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}f_{0}(600)\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{*-}D^{*+}_{s}, \bar{B}^{0} \to \pi^{0}\pi^{0}\rho^{-}\eta\omega D^{*+}, \bar{D}^{*-} \to \pi^{0}D^{-}, D^{*+}_{s} \to D^{+}_{s}\gamma,}$		
23	$ ho^- ightarrow \pi^0 \pi^-, \eta ightarrow \pi^0 \pi^0 \pi^0, \omega ightarrow \pi^0 \pi^+ \pi^-, D^{*+} ightarrow \pi^+ D^0, D^- ightarrow \pi^- K_S, D_s^+ ightarrow ho^+ \eta',$	1	23
2.5	$D^{0} \to K^{-}a_{1}^{+}, K_{S} \to \pi^{0}\pi^{0}, \rho^{+} \to \pi^{0}\pi^{+}, \eta' \to \rho^{0}\gamma, a_{1}^{+} \to \pi^{+}\pi^{+}\pi^{-}, \rho^{0} \to \pi^{+}\pi^{-}$	1	20
	$(e^+e^- \to \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to K^{*}D^{+}\bar{D}^{*-}, B^{0} \to \pi^{+}\pi^{-}\rho^{-}\omega K^{*+}, K^{*} \to \pi^{-}K^{+}, D^{+} \to \pi^{0}K_{L}\pi^{+},$		
24	$\bar{D}^{*-} \to \pi^- \bar{D}^0, \rho^- \to \pi^0 \pi^-, \omega \to \pi^0 \pi^+ \pi^-, K^{*+} \to \pi^0 K^+, \bar{D}^0 \to K^+ a_1^-, a_1^- \to \rho^0 \pi^-,$	1	24
24	$ ho^0 ightarrow \pi^+\pi^-$	1	24
	$(e^+e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$		
	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \pi^{0}\rho^{0}\pi^{-}\rho^{+}\rho^{+}\eta D^{-}, \bar{B}^{0} \rightarrow \pi^{+}\bar{K}^{*}\bar{D}^{*-}D^{0}, \rho^{0} \rightarrow \pi^{+}\pi^{-}, \rho^{+} \rightarrow \pi^{0}\pi^{+}, \bar{B}^{0} \rightarrow \pi^{0}\bar{B}^{0}, \bar{B}^{0}, \bar{B}^{0} \rightarrow \pi^{0}\bar{B}^{0$		
25	$\rho^{+} \to \pi^{0} \pi^{+}, \eta \to \pi^{0} \pi^{+} \pi^{-}, D^{-} \to \pi^{-} \pi^{-} K^{+}, \bar{K}^{*} \to \pi^{+} K^{-}, \bar{D}^{*-} \to \pi^{-} \bar{D}^{0}, D^{0} \to e^{+} \nu_{e} \pi^{0} K^{-},$	1	25
	$\pi^0 \to e^+ e^-, \bar{D}^0 \to \mu^- \bar{\nu}_\mu K^{*+}, K^{*+} \to \pi^+ K^0, K^0 \to K_S, K_S \to \pi^+ \pi^-$	_	
	$(e^{+}e^{-} \to e^{+}e^{+}e^{-}\nu_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{0}\bar{D}^{0}D^{*0}, \bar{B}^{0} \to \pi^{0}\pi^{-}\omega D^{+}, K^{0} \to K_{L}, \bar{D}^{0} \to K^{+}a_{1}^{-},$		
26	$D^{*0} \to D^0 \gamma, \omega \to \pi^0 \pi^+ \pi^-, D^+ \to \pi^+ K^0 \bar{K}^*, a_1^- \to \rho^0 \pi^-, D^0 \to e^+ \nu_e K^{*-}, K^0 \to K_L,$	1	26
	$\bar{K}^* \to \pi^+ K^-, \rho^0 \to \pi^+ \pi^-, K^{*-} \to \pi^0 K^-$	_	
	$(e^+e^- \to e^+\nu_e K_L K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to e^{+}\nu_{e}\bar{D}^{*-}, B^{0} \to \mu^{+}\nu_{\mu}D^{-}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D^{-} \to \pi^{0}\pi^{-}K^{*},$		
27	$ar{D}^0 o \pi^- K^+, K^* o \pi^- K^+$	1	27
	$(e^{+}e^{-} \to e^{+}\nu_{e}\mu^{+}\nu_{\mu}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma\gamma)$		
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to B^0 \bar{B}^0, B^0 \to \mu^+ \nu_\mu \bar{D}^{*-}, \bar{B}^0 \to \mu^- \bar{\nu}_\mu D_1^+, \bar{D}^{*-} \to \pi^- \bar{D}^0, D_1^+ \to \pi^+ \pi^- D^+,$		
28	$\bar{D}^0 \to \pi^0 \pi^- K^+, D^+ \to \pi^0 \pi^+ \pi^+ \pi^-$	1	28
	$(e^{+}e^{-} \to \mu^{+}\mu^{-}\nu_{\mu}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma)$		
29	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \tau^{+}\nu_{\tau}\bar{D}^{*-}, \bar{B}^{0} \to \rho^{-}D^{+}, \tau^{+} \to \bar{\nu}_{\tau}\pi^{0}\pi^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$		
	$ ho^- o \pi^0 \pi^-, D^+ o e^+ \nu_e \bar{K}^0, \bar{D}^0 o \pi^- \omega K^+, \bar{K}^0 o K_L, \omega o \pi^0 \pi^+ \pi^-$	1	29
	$(e^{+}e^{-} \rightarrow e^{+}\nu_{e}\nu_{\tau}\bar{\nu}_{\tau}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^0\bar{B}^0, \bar{B}^0 \to \pi^+\pi^-\rho^- D^+, \bar{B}^0 \to \pi^+\rho^-\rho^- D^+, \rho^- \to \pi^0\pi^-, D^+ \to \pi^0K_L\pi^+,$	_	
30	$ ho^- o \pi^0 \pi^-, ho^- o \pi^0 \pi^-, D^+ o K_L a_1^+, a_1^+ o ho^0 \pi^+, ho^0 o \pi^+ \pi^-$	1	30
	$(e^+e^- \to K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$		

index	event tree (event initial-final states)	nEvts	nCmltEvts
31	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}D_{1}^{-}, \bar{B}^{0} \to \bar{K}_{1}^{0}\gamma, D_{1}^{-} \to \pi^{+}\pi^{-}D^{-}, \bar{K}_{1}^{0} \to \pi^{+}\pi^{-}\bar{K}^{0},$ $D^{-} \to \mu^{-}\bar{\nu}_{\mu}K^{0}, \bar{K}^{0} \to K_{S}, K^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-}, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to \mu^{+}\mu^{-}\nu_{\mu}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma)$	1	31
32	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{-}K^{+}D^{*+}\bar{D}^{*-}, \bar{B}^{0} \to \rho^{0}\rho^{-}\eta\omega D^{+}, D^{*+} \to \pi^{+}D^{0}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$ $\rho^{0} \to \pi^{+}\pi^{-}, \rho^{-} \to \pi^{0}\pi^{-}, \eta \to \pi^{0}\pi^{+}\pi^{-}, \omega \to \pi^{+}\pi^{-}, D^{+} \to e^{+}\nu_{e}\pi^{+}K^{-}, D^{0} \to K_{L}\pi^{+}\pi^{-},$ $\bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, \pi^{0} \to e^{+}e^{-}, K_{L} \to \pi^{0}\pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{+}e^{+}e^{-}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$	1	32
33	$\frac{(e^{+}e^{-} \to e^{+}e^{+}e^{-}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$	1	33
34	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{\bar{0}}B^{0}, B^{0} \to \tau^{+}\nu_{\tau}D_{0}^{*-}, B^{0} \to \rho^{+}\eta\omega\bar{D}^{*-}, \tau^{+} \to \bar{\nu}_{\tau}\pi^{0}K^{+}, D_{0}^{*-} \to \pi^{-}\bar{D}^{0},$ $\rho^{+} \to \pi^{0}\pi^{+}, \eta \to \pi^{0}\pi^{0}\pi^{0}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{0}D^{-}, \bar{D}^{0} \to \mu^{-}\bar{\nu}_{\mu}K^{+}, D^{-} \to K_{L}a_{1}^{-},$ $a_{1}^{-} \to \rho^{0}\pi^{-}, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\nu}, \nu_{\sigma}\bar{\nu}_{\sigma}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma$	1	34
35	$(e^{+}e^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}\nu_{\tau}\bar{\nu}_{\tau}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \bar{D}^{*-}\bar{\Delta}^{0}\Delta^{+}, \bar{B}^{0} \rightarrow \bar{K}^{*}\chi_{c1}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, \bar{\Delta}^{0} \rightarrow \pi^{0}\bar{n},$ $\Delta^{+} \rightarrow \pi^{0}p, \bar{K}^{*} \rightarrow \pi^{+}K^{-}, \chi_{c1} \rightarrow \eta K^{+}K^{-}, \bar{D}^{0} \rightarrow \mu^{-}\bar{\nu}_{\mu}K^{*+}, \eta \rightarrow \gamma\gamma, K^{*+} \rightarrow \pi^{+}K^{0},$ $K^{0} \rightarrow K_{L}$ $(e^{+}e^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{-}K^{+}K^{-}\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma)$	1	35
36	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{0}\bar{p}\Delta^{+}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D_{1}^{+}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, \Delta^{+} \to \pi^{+}n,$ $D_{1}^{+} \to \pi^{+}\pi^{-}D^{+}, D^{+} \to K_{L}\pi^{+}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}n\bar{p}\gamma\gamma)$	1	36
37	$(e^{+}e^{-} \rightarrow e^{-}\overline{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}n\overline{p}\gamma\gamma)$ $e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\overline{B}^{0}, B^{0} \rightarrow \mu^{+}\nu_{\mu}D^{-}, \overline{B}^{0} \rightarrow \pi^{0}\pi^{-}D^{*+}, D^{-} \rightarrow K_{L}a_{1}^{-}, D^{*+} \rightarrow \pi^{+}D^{0},$ $K_{L} \rightarrow \pi^{0}\pi^{0}\pi^{0}, a_{1}^{-} \rightarrow \pi^{0}\rho^{-}, D^{0} \rightarrow \pi^{0}\pi^{0}\pi^{0}\pi^{+}\pi^{-}, \rho^{-} \rightarrow \pi^{0}\pi^{-}$ $(e^{+}e^{-} \rightarrow \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \overline{B}^{0}\overline{B}^{0}, \overline{B}^{0} \rightarrow \eta D^{+}p\overline{\Delta}^{++}, \overline{B}^{0} \rightarrow \pi^{0}\pi^{+}\pi^{-}\rho^{-}D^{+}, \eta \rightarrow \gamma\gamma, D^{+} \rightarrow \pi^{+}K_{S},$	1	37
38	$\bar{\Delta}^{++} \to \pi^- \bar{p}, \rho^- \to \pi^0 \pi^-, D^+ \to \pi^0 K_L \pi^+, K_S \to \pi^+ \pi^- (e^+ e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- p \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma)$	1	38
39	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to \pi^{-}D^{+}, \bar{B}^{0} \to \pi^{0}\pi^{0}K^{*}K^{*-}D^{+}, D^{+} \to e^{+}\nu_{e}\bar{K}^{*}, K^{*} \to \pi^{0}K^{0},$ $K^{*-} \to \pi^{-}\bar{K}^{0}, D^{+} \to \mu^{+}\nu_{\mu}\pi^{0}, \bar{K}^{*} \to \pi^{+}K^{-}, K^{0} \to K_{L}, \bar{K}^{0} \to K_{S}, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	39
40	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\pi^{+}\bar{D}^{*-}, \bar{B}^{0} \to \rho^{-}D^{*+}\gamma, \rho^{0} \to \pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{0}D^{-},$ $\rho^{-} \to \pi^{0}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, D^{-} \to \rho^{-}K^{*}, D^{0} \to \rho^{0}\pi^{+}K^{-}, \rho^{-} \to \pi^{0}\pi^{-}, K^{*} \to \pi^{-}K^{+},$ $\rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	40
41	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}\pi^{0}\pi^{0}D^{*+}, D^{*+} \to \pi^{0}D^{+}, D^{*+} \to \pi^{+}D^{0},$ $D^{+} \to \pi^{+}K^{-}K^{*+}, D^{0} \to \pi^{0}\pi^{+}K^{-}, K^{*+} \to \pi^{0}K^{+}$ $(e^{+}e^{-} \to \mu^{-}\mu^{-}\bar{\nu}_{\mu}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	41

index	event tree (event initial-final states)	nEvts	nCmltEvts
	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \mu^{+}\nu_{\mu}\bar{D}^{*-}, \bar{B}^{0} \rightarrow \pi^{-}\omega D^{*+}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, \omega \rightarrow \pi^{0}\pi^{+}\pi^{-},$		
42	$D^{*+} \to \pi^0 D^+, \bar{D}^0 \to \pi^0 \pi^- K^+, D^+ \to \pi^+ \pi^+ K^-$	1	42
	$(e^+e^- o \mu^+ u_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma)$	_	
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^0\bar{B}^0, \bar{B}^0 \to \pi^+K^-\eta_c(2S), \bar{B}^0 \to \pi^0\pi^+\pi^-D^+\Sigma^-\bar{\Sigma}^0, \eta_c(2S) \to \pi^0\rho^0\pi^+\pi^-\pi^-\rho^+\eta, D^+ \to \mu^+\nu_\mu\bar{K}^*,$		
43	$\Sigma^- \to \pi^- n, \bar{\Sigma}^0 \to \bar{\Lambda} \gamma, \rho^0 \to \pi^+ \pi^-, \rho^+ \to \pi^0 \pi^+, \eta \to \gamma \gamma, \bar{K^*} \to \pi^+ K^-,$	1	43
40	$ar{\Lambda} ightarrow \pi^+ ar{p}$	1	40
	$\frac{(e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}K^{-}n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \eta D^{-}D_{s}^{+}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \eta \to \pi^{0}\pi^{0}\pi^{0}, D^{-} \to \rho^{-}K^{*},}$		
	$e^+e^- o \Upsilon(4S), \Upsilon(4S) o B^0 B^0, B^0 o \eta D^- D_s^+, B^0 o e^- ar{ u}_e D^{*+}, \eta o \pi^0 \pi^0, D^- o ho^- K^*,$		
44	$D_{s}^{+} \to \pi^{+} \eta', D^{*+} \to \pi^{+} D^{0}, \rho^{-} \to \pi^{0} \pi^{-}, K^{*} \to \pi^{0} K^{0}, \eta' \to \pi^{0} \pi^{0} \eta, D^{0} \to \pi^{0} \pi^{+} K^{-}, K^{0} \to K_{S}, \eta \to \gamma \gamma, K_{S} \to \pi^{+} \pi^{-}$	1	44
	$(e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \omega K^{+}\bar{D}^{*-}, \bar{B}^{0} \to D^{*+}D^{-}_{s}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$		
	$D^{*+} \to \pi^0 D^+, D^s \to \pi^- f_0(980), \bar{D}^0 \to \pi^- \omega K^+, D^+ \to K_S K^{*+}, f_0(980) \to \pi^+ \pi^-, \omega \to \pi^0 \pi^- \omega K^-, \omega \to \pi^0 \pi^- \omega K^-, \omega \to \pi^0 \pi^- \omega K^-, \omega \to \omega K$		
45	$K_S \to \pi^+\pi^-, K^{*+} \to \pi^+K^0, K^0 \to K_S, K_S \to \pi^+\pi^-$	1	45
	$(e^{+}e^{-} \rightarrow \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \eta \bar{D}^{*-}D^{+}_{s}, B^{0} \to \pi^{0}\pi^{-}\rho^{+}\bar{K}^{0}K^{+}D^{-}, \eta \to \gamma\gamma, \bar{D}^{*-} \to \pi^{0}D^{-},$		
46	$D_s^+ \to \mu^+ \nu_\mu \eta, \rho^+ \to \pi^0 \pi^+, \bar{K}^0 \to K_S, D^- \to K_S K^{*-}, D^- \to \pi^- \pi^- K^+, \eta \to \pi^0 \pi^0 \pi^0,$	1	46
40	$K_S \to \pi^0 \pi^0, K_S \to \pi^+ \pi^-, K^{*-} \to \pi^- \bar{K}^0, \pi^0 \to e^+ e^-, \bar{K}^0 \to K_S, K_S \to \pi^+ \pi^-$	1	40
	$(e^+e^- \to e^+e^-\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+\gamma$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{+}\pi^{+}\pi^{-}\rho^{-}\eta\eta\bar{K}^{0}K^{+}D^{-}, \bar{B}^{0} \to \pi^{0}\rho^{0}\pi^{-}D^{*+}, \rho^{-} \to \pi^{0}\pi^{-}, \eta \to \gamma\gamma,$ $\eta \to \pi^{0}\pi^{0}\pi^{0}, \bar{K}^{0} \to K_{L}, D^{-} \to \pi^{-}K_{S}, \rho^{0} \to \pi^{+}\pi^{-}, D^{*+} \to \pi^{0}D^{+}, K_{S} \to \pi^{+}\pi^{-},$		
47	$\eta ightarrow \pi^*\pi^*\pi^*, K^* ightarrow K_L, D^- ightarrow \pi^-K_S, ho^* ightarrow \pi^+\pi^-, D^{++} ightarrow \pi^*D^+, K_S ightarrow \pi^+\pi^-, onumber \ D^+ ightarrow \pi^0K_L\pi^+$	1	47
	$(e^+e^- \to K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\rho^{+}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{+}K^{-}D^{+}D^{-}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+},$		
40	$\bar{D}^{*-} \to \pi^{-} \bar{D}^{0}, D^{+} \to \pi^{0} \pi^{+} \bar{K}^{*}, D^{-} \to \mu^{-} \bar{\nu}_{\mu} K^{0}, \bar{D}^{0} \to \mu^{-} \bar{\nu}_{\mu} K^{+}, \bar{K}^{*} \to \pi^{0} \bar{K}^{0}, K^{0} \to K_{S},$	-	40
48	$ar{K}^0 ightarrow K_L, K_S ightarrow \pi^+\pi^-$	1	48
	$\frac{(e^{+}e^{-} \to \mu^{-}\mu^{-}\bar{\nu}_{\mu}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\rho^{+}D^{-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{+}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+},}$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\rho^{+}D^{-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{+}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+},$		
49	$D^- o \mu^- ar{ u}_\mu K^*, D^+ o e^+ u_e ar{K}^*, K^* o \pi^0 K^0, ar{K}^* o \pi^0 ar{K}^0, K^0 o K_L, ar{K}^0 o K_S,$	1	49
10	$K_S o \pi^0 \pi^0$	_	10
	$\frac{(e^+e^- \to e^+\nu_e\mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu K_L\pi^+\pi^+\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to B^0\bar{B}^0, B^0 \to \pi^+\pi^-\rho^+\eta D^-, \bar{B}^0 \to \mu^-\bar{\nu}_\mu D^{*+}, \rho^+ \to \pi^0\pi^+, \eta \to \pi^0\pi^0\pi^0,}$		
	$e^{+}e^{-} ightarrow 1(4S), 1(4S) ightarrow B^{0}B^{0}, B^{0} ightarrow \pi^{+}\pi^{-} ho^{+}\eta D^{-}, B^{0} ightarrow \mu^{+} u_{\mu}D^{*+}, ho^{+} ightarrow \pi^{0}\pi^{0}\pi^{0}, onumber onumber$		
50	$D^- ightarrow K_S K^-, D^- ightarrow \pi^+ D^-, \pi^- ightarrow e^+ e^-, K_S ightarrow \pi^+ \pi^-, D^- ightarrow \pi^- \pi^- K^-, K^- ightarrow \pi^- K_I^-$	1	50
	$(e^+e^- \to e^+e^-\mu^-\bar{\nu}_\mu K_L \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	(СССТВЕНЕННИЙ ПОТЕТЕТИТЕТИТЕТИТЕТИТЕТИТЕТИТЕТИТЕТИТЕТИТ	l	

index	event tree	T2 4	C LE
macx	(event initial-final states)	nEvts	nCmltEvts
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to e^{+}\nu_{e}\eta D^{-}, B^{0} \to \pi^{0}\pi^{+}\pi^{+}\pi^{-}\bar{D}^{*-}, \eta \to \pi^{+}\pi^{-}, D^{-} \to K_{L}a_{1}^{-},$		
51	$\bar{D}^{*-} \to \pi^- \bar{D}^0, a_1^- \to \pi^- f_0(600), \bar{D}^0 \to \mu^- \bar{\nu}_\mu K^+$	1	51
	$(e^{+}e^{-} \to e^{+}\nu_{e}\mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}f_{0}(600)\gamma\gamma)$		
52	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{+}\pi^{+}\rho^{-}D^{-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{+}, \rho^{-} \to \pi^{0}\pi^{-}, D^{-} \to \pi^{0}\pi^{+}\pi^{-}\pi^{-}K^{0},$ $D^{+} \to \pi^{+}\pi^{+}K^{-}, K^{0} \to K_{L}$	1	F0.
52	$(e^+e^- ightarrow e^+\overline{\nu}_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma)$	1	52
	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\pi^+\pi^+\pi^-\omega D^-, \bar{B}^0 \rightarrow \rho^+\rho^-D^{*0}, \rho^0 \rightarrow \pi^+\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-\pi^-, \omega \rightarrow \pi^0\pi^-, \omega \rightarrow \pi^$		
	$D^{-} \to \pi^{-} K_{1}^{'0}, \rho^{+} \to \pi^{0} \pi^{+}, \rho^{-} \to \pi^{0} \pi^{-}, D^{*0} \to D^{0} \gamma, K_{1}^{'0} \to \pi^{-} K^{*+}, D^{0} \to e^{+} \nu_{e} K^{*-},$		
53	$K^{*+} \rightarrow \pi^0 K^+, K^{*-} \rightarrow \pi^- ar{K}^0, ar{K}^0 \rightarrow K_L$	1	53
	$(e^{+}e^{-} \to e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$		
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to B^0 \bar{B}^0, B^0 \to \pi^- \bar{D}^0 D_s^+, \bar{B}^0 \to D^{*+} D_s^{*-}, \bar{D}^0 \to \rho^- K^{*+}, D_s^+ \to \rho^+ \eta,$		
54	$D^{*+} \to \pi^+ D^0, D_s^{*-} \to D_s^- \gamma, \rho^- \to \pi^0 \pi^-, K^{*+} \to \pi^0 K^+, \rho^+ \to \pi^0 \pi^+, \eta \to \gamma \gamma,$	1	54
	$D^0 o K_S K^+ K^-, D_S^- o \pi^- \eta', K_S o \pi^0 \pi^0, \eta' o \pi^+ \pi^- \eta, \eta o \pi^0 \pi^+ \pi^-$		
	$\frac{(e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{*-}a_{1}^{+}, \bar{B}^{0} \to \pi^{0}\rho^{0}\rho^{0}\rho^{-}D^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, a_{1}^{+} \to \pi^{+}K^{0}\bar{K}^{0},}$		
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		
55	$ar{K}^0 o K_S, K_S o \pi^0 \pi^0, a_1^- o ho^0 \pi^-, K_S o \pi^+ \pi^-, K_S o \pi^0 \pi^0, ho^0 o \pi^+ \pi^-$	1	55
	$(e^+e^- ightarrow\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^+e^- o \Upsilon(4S), \Upsilon(4S) o B^0 \overline{B}{}^0, B^0 o \pi^0 \Delta^+ \overline{\Xi}^{*-}_{c}, \overline{B}{}^0 o \pi^0 \pi^+ D^0 D_s^{*-}, \Delta^+ o \pi^+ n, \overline{\Xi}^{*-}_{c} o \overline{\Xi}^{-}_{c} \gamma,$		
56	$D^{0} \to \mu^{+} \nu_{\mu} K^{*-}, D^{*-}_{s} \to D^{-}_{s} \gamma, \bar{\Xi}^{-}_{c} \to \pi^{0} \pi^{-} \bar{\Xi}^{0}, K^{*-} \to \pi^{-} \bar{K}^{0}, D^{-}_{s} \to K^{0} K^{*-}, \bar{\Xi}^{0} \to \pi^{0} \bar{\Lambda},$	1	56
	$ar{K}^0 ightarrow K_L, K^0 ightarrow K_L, K^{*-} ightarrow \pi^0 K^-, ar{\Lambda} ightarrow \pi^+ ar{p}, K_L ightarrow \mu^- u_\mu \pi^+$	1	
	$\frac{(e^+e^- \to \mu^+\mu^-\nu_\mu\nu_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-K^-n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to B^0\bar{B}^0, B^0 \to e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \to \pi^0\bar{\Delta}^+\Sigma_c^+, \bar{D}^{*-} \to \pi^0D^-, \bar{\Delta}^+ \to \pi^-\bar{n},}$		
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		
57	$K_S ightarrow \pi^+\pi^-$	1	57
	$\frac{(e^{+}e^{-} \to e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\pi^{+}\pi^{-}\bar{D}^{*0}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, \rho^{0} \to \pi^{+}\pi^{-}, \bar{D}^{*0} \to \bar{D}^{0}\gamma,}$		
58	$D^{*+} o D^+ \gamma, ar{D}^0 o ho^- K^{*+}, D^+ o \mu^+ u_\mu ar{K}^0, ho^- o \pi^0 \pi^-, K^{*+} o \pi^+ K^0, ar{K}^0 o K_S,$	1	58
	$K^0 ightarrow K_S, K_S ightarrow \pi^0 \pi^0, K_S ightarrow \pi^0 \pi^0$	1	
	$(e^+e^- \to \mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
59	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \rightarrow D^{+}\Delta^{0}\bar{\Delta}^{+}, \bar{B}^{0} \rightarrow \pi^{0}\rho^{0}\pi^{+}\pi^{-}\eta\eta, D^{+} \rightarrow \mu^{+}\nu_{\mu}\bar{K}^{*}, \Delta^{0} \rightarrow \pi^{0}n, \\ \bar{\Delta}^{+} \rightarrow \pi^{0}\bar{p}, \rho^{0} \rightarrow \pi^{+}\pi^{-}, \eta \rightarrow \gamma\gamma, \eta \rightarrow \pi^{0}\pi^{+}\pi^{-}, \bar{K}^{*} \rightarrow \pi^{+}K^{-}$	1	59
	$\Delta \stackrel{\cdot}{\rightarrow} \pi \stackrel{\cdot}{p}, \rho \stackrel{\cdot}{\rightarrow} \pi \stackrel{\cdot}{\pi} \stackrel{\cdot}{\pi}, \eta \stackrel{\cdot}{\rightarrow} \gamma \gamma, \eta \stackrel{\cdot}{\rightarrow} \pi \stackrel{\cdot}{\pi} \stackrel{\cdot}{\pi}, \kappa \stackrel{\cdot}{\rightarrow} \pi \stackrel{\cdot}{\rightarrow} \kappa \stackrel{\cdot}{\rightarrow} $	1	99
	$\frac{(e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{+}\pi^{+}\pi^{-}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\pi^{0}\pi^{0}\rho^{0}\rho^{0}\pi^{+}\pi^{-}\pi^{-}D^{*+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \rho^{0} \to \pi^{+}\pi^{-}, \bar{D}^{*-}, D$		
60	$\rho^{0} \rightarrow \pi^{+}\pi^{-}, D^{*+} \rightarrow \pi^{+}D^{0}, \bar{D}^{0} \rightarrow K^{+}a_{1}^{-}, D^{0} \rightarrow \mu^{+}\nu_{\mu}\pi^{-}, a_{1}^{-} \rightarrow \rho^{0}\pi^{-}, \rho^{0} \rightarrow \pi^{+}\pi^{-}$	1	60
	$(e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$		

index	event tree (event initial-final states)	nEvts	nCmltEvts
61	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{+}\omega\bar{D}^{*-}, \bar{B}^{0} \to \pi^{-}\bar{K}^{0}D^{+}\bar{D}^{*0}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{0}D^{-},$ $\bar{K}^{0} \to K_{S}, D^{+} \to \pi^{0}\pi^{+}\bar{K}^{*}, \bar{D}^{*0} \to \bar{D}^{0}\gamma, D^{-} \to e^{-}\bar{\nu}_{e}K^{0}, K_{S} \to \pi^{+}\pi^{-}, \bar{K}^{*} \to \pi^{+}K^{-},$ $\bar{D}^{0} \to \pi^{0}\pi^{0}\pi^{0}\pi^{+}\pi^{-}, K^{0} \to K_{S}, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma$	1	61
62	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{+}\bar{K}^{*}\bar{D}^{*-}D^{0}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \bar{K}^{*} \to \pi^{0}\bar{K}^{0},$ $\bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D^{0} \to \rho^{+}K^{*-}, \bar{D}^{0} \to K^{+}a_{1}^{-}, \bar{K}^{0} \to K_{L}, \bar{D}^{0} \to \pi^{-}K^{+}, \rho^{+} \to \pi^{0}\pi^{+},$ $K^{*-} \to \pi^{-}\bar{K}^{0}, a_{1}^{-} \to \pi^{-}f_{0}(600), \bar{K}^{0} \to K_{L}$ $(e^{+}e^{-} \to e^{+}\nu_{e}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}f_{0}(600)\gamma\gamma\gamma\gamma)$	1	62
63	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \bar{D}^{*-}a_{1}^{+}, B^{0} \to \pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}D^{-}\Delta^{+}\bar{\Delta}^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, a_{1}^{+} \to \rho^{0}\pi^{+},$ $D^{-} \to e^{-}\bar{\nu}_{e}\pi^{-}K^{+}, \Delta^{+} \to \pi^{0}p, \bar{\Delta}^{+} \to \pi^{0}\bar{p}, \bar{D}^{0} \to \mu^{-}\bar{\nu}_{\mu}K^{*+}, \rho^{0} \to \pi^{+}\pi^{-}, K^{*+} \to \pi^{+}K^{0},$ $K^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}p\bar{p}\gamma\gamma\gamma\gamma)$	1	63
64	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\pi^{-}\eta\bar{D}^{0}, \bar{B}^{0} \to \pi^{-}\pi^{-}\pi^{-}\rho^{+}\rho^{+}\omega D^{*+}, \eta \to \pi^{0}\pi^{0}\pi^{0}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, \rho^{+} \to \pi^{0}\pi^{+}, \rho^{+} \to \pi^{0}\pi^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, D^{0} \to e^{+}\nu_{e}\pi^{0}K^{-} (e^{+}e^{-} \to e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma$	1	64
65	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\pi^{+}K^{-}K^{*}+\bar{D}^{*}-, \bar{B}^{0} \to \pi^{0}\pi^{0}\rho^{0}\rho^{0}\pi^{-}D^{+}, \rho^{0} \to \pi^{+}\pi^{-}, K^{*}+ \to \pi^{+}K^{0},$ $\bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{0} \to \pi^{+}\pi^{-}, D^{+} \to e^{+}\nu_{e}\bar{K}^{0}, K^{0} \to K_{S}, \bar{D}^{0} \to K_{L}\eta',$ $\bar{K}^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-}, \eta' \to \pi^{+}\pi^{-}\eta, K_{S} \to \pi^{+}\pi^{-}, \eta \to \gamma\gamma$ $(e^{+}e^{-} \to e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$	1	65
66	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}D^{-}, \bar{B}^{0} \to \pi^{0}\pi^{0}\pi^{+}\pi^{-}\pi^{-}D^{*+}p\bar{p}, D^{-} \to \pi^{+}\pi^{-}\pi^{-}K_{S}, D^{*+} \to \pi^{+}D^{0},$ $K_{S} \to \pi^{0}\pi^{0}, D^{0} \to \pi^{0}\pi^{+}\pi^{-}\bar{K}^{*}, \bar{K}^{*} \to \pi^{+}K^{-}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}p\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	66
67	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}D_{0}^{*-}, \bar{B}^{0} \to \tau^{-}\bar{\nu}_{\tau}D^{*+}, D_{0}^{*-} \to \pi^{-}\bar{D}^{0}, \tau^{-} \to \nu_{\tau}\pi^{0}\pi^{-},$ $D^{*+} \to \pi^{+}D^{0}, \bar{D}^{0} \to \pi^{+}\pi^{-}K^{*}, D^{0} \to \pi^{0}\pi^{0}\bar{K}^{*}, K^{*} \to \pi^{-}K^{+}, \bar{K}^{*} \to \pi^{+}K^{-}$ $(e^{+}e^{-} \to \mu^{+}\nu_{\mu}\nu_{\tau}\bar{\nu}_{\tau}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	67
68	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \pi^{+}\omega\omega\bar{D}^{*-}, \bar{B}^{0} \rightarrow \eta D^{+}D_{s}^{*-}, \omega \rightarrow \pi^{0}\gamma, \omega \rightarrow \pi^{0}\pi^{+}\pi^{-},$ $\bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, \eta \rightarrow \gamma\gamma, D^{+} \rightarrow K_{L}\pi^{+}, D_{s}^{*-} \rightarrow D_{s}^{-}\gamma, \bar{D}^{0} \rightarrow \pi^{-}\eta K^{+}, D_{s}^{-} \rightarrow K^{0}K^{*-},$ $\eta \rightarrow \pi^{0}\pi^{0}\pi^{0}, K^{0} \rightarrow K_{L}, K^{*-} \rightarrow \pi^{0}K^{-}$ $(e^{+}e^{-} \rightarrow K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	68
69	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{+}, \bar{B}^{0} \to \rho^{0}\rho^{-}\eta D^{*+}, D^{+} \to \pi^{0}\pi^{+}K_{S}, \rho^{0} \to \pi^{+}\pi^{-},$ $\rho^{-} \to \pi^{0}\pi^{-}, \eta \to \gamma\gamma, D^{*+} \to \pi^{+}D^{0}, K_{S} \to \pi^{+}\pi^{-}, D^{0} \to \omega\bar{K}^{*}, \omega \to \pi^{+}\pi^{-},$ $\bar{K}^{*} \to \pi^{+}K^{-}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	69
70	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{+}D^{-}, \bar{B}^{0} \to \rho^{-}D^{*+}, \rho^{+} \to \pi^{0}\pi^{+}, D^{-} \to \pi^{0}\pi^{-}\phi,$ $\rho^{-} \to \pi^{0}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, \phi \to K^{+}K^{-}, D^{0} \to e^{+}\nu_{e}\pi^{-}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	70

index	event tree (event initial-final states)	nEvts	nCmltEvts
	· · · · · · · · · · · · · · · · · · ·		
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to B^0\bar{B}^0, B^0 \to \pi^- K^+ D^0\bar{D}^0, \bar{B}^0 \to K^{*-}D^+, D^0 \to \rho^+ K^{*-}, \bar{D}^0 \to \rho^0 \rho^0,$		
71	$K^{*-} \to \pi^- \bar{K}^0, D^+ \to e^+ \nu_e \bar{K}^*, \rho^+ \to \pi^0 \pi^+, K^{*-} \to \pi^- \bar{K}^0, \rho^0 \to \pi^+ \pi^-, \rho^0 \to \pi^+ \pi^-, \bar{K}^0 \to K_L, \bar{K}^* \to \pi^+ K^-, \bar{K}^0 \to K_L$	1	71
	$(e^+e^- \rightarrow e^+\nu_e K_L K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{0}\pi^{+}\rho^{+}\rho^{-}D^{-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{+}, \rho^{+} \to \pi^{0}\pi^{+}, \rho^{-} \to \pi^{0}\pi^{-},$		
72	$D^- o e^- ar{ u}_e \pi^- K^+, D^+ o \pi^0 \pi^+ \pi^+ K^-$	1	72
	$(e^+e^- ightarrow e^-e^-ar{ u}_ear{ u}^+\pi^+\pi^+\pi^+\pi^+\pi^-K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{*}n\bar{\Sigma}_{c}^{*0}, \bar{B}^{0} \to \pi^{-}D^{+}, K^{*} \to \pi^{-}K^{+}, \bar{\Sigma}_{c}^{*0} \to \pi^{+}\bar{\Lambda}_{c}^{-},$		
73	$D^{+} \to \pi^{0} \pi^{+} \bar{K}^{*}, \bar{\Lambda}_{c}^{-} \to \pi^{0} \pi^{-} K^{+} \bar{p}, \bar{K}^{*} \to \pi^{+} K^{-}$	1	73
	$(e^+e^- \to \pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^+K^-n\bar{p}\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{\bar{0}}\bar{B}^{0}, B^{0} \rightarrow e^{+}\nu_{e}\bar{D}^{*-}, \bar{B}^{0} \rightarrow \pi^{-}\pi^{-}D^{*+}\bar{n}\Delta^{+}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, D^{*+} \rightarrow \pi^{+}D^{0},$	_	
74	$\Delta^{+} \to \pi^{0} p, \bar{D}^{0} \to e^{-\bar{\nu}_{e}} \pi^{+} K^{0}, D^{0} \to K^{-} a_{1}^{+}, K^{0} \to K_{L}, a_{1}^{+} \to \pi^{+} f_{0}(600)$	1	74
	$(e^{+}e^{-} \to e^{+}e^{-}\nu_{e}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{-}\bar{n}pf_{0}(600)\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{*+}\bar{D}^{*-}D^{0}, \bar{B}^{0} \to D^{*+}D^{*-}_{s0}, K^{*+} \to \pi^{+}K^{0}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$		
	$D^{0} \to \pi^{0}\pi^{+}K^{-}, D^{*+} \to \pi^{0}D^{+}, D^{*-} \to \pi^{0}D^{-}, K^{0} \to K_{L}, \bar{D}^{0} \to \rho^{-}K^{*+}, D^{+} \to \mu^{+}\nu_{\mu}\pi^{+}K^{-},$		
75	$D_s^- \to K^*K^-, \rho^- \to \pi^0\pi^-, K^{*+} \to \pi^0K^+, K^* \to \pi^0K^0, K^0 \to K_L$	1	75
	$(e^{+}e^{-} \rightarrow \mu^{+}\nu_{\mu}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma$		
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to B^0\bar{B}^0, B^0 \to \mu^+\nu_\mu\bar{D}^{*-}, \bar{B}^0 \to \pi^0\pi^+\pi^-\rho^+\bar{D}^{*-}D^{*0}, \bar{D}^{*-} \to \pi^0D^-, \rho^+ \to \pi^0\pi^+, \bar{B}^0 \to \bar$		
76	$\bar{D}^{*-} \to \pi^0 D^-, D^{*0} \to \pi^0 D^0, D^- \to K_L \pi^- K^+ K^-, D^- \to \pi^0 \pi^- \pi^- K^+, D^0 \to \pi^0 \pi^+ K^-$	1	76
	$(e^+e^- \to \mu^+\nu_\mu K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\rho^{+}\omega\omega D^{-}, \bar{B}^{0} \to K^{-}D^{*+}\bar{D}^{*0}, \rho^{+} \to \pi^{0}\pi^{+}, \omega \to \pi^{+}\pi^{-},$		
	$\omega \to \pi^0 \pi^+ \pi^-, D^- \to \pi^0 K_L \pi^-, D^{*+} \to \pi^0 D^+, \bar{D}^{*0} \to \pi^0 \bar{D}^0, D^+ \to \pi^+ \bar{K}_1^{'0}, \bar{D}^0 \to \rho^- K^{*+},$	_	
77	$\bar{K}_{1}^{'0} \to \pi^{+}K^{*-}, \rho^{-} \to \pi^{0}\pi^{-}, K^{*+} \to \pi^{+}K^{0}, K^{*-} \to \pi^{-}\bar{K}^{0}, K^{0} \to K_{L}, \bar{K}^{0} \to K_{S},$	1	77
	$K_S ightarrow \pi^0 \pi^0$		
	$(e^+e^- \to K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma$		
	$\begin{array}{c} e^+e^- \rightarrow 1 (4S), 1 (4S) \rightarrow B^- B^-, B^- \rightarrow e^- \nu_e D^-, B^- \rightarrow \pi^+\pi^+\pi^- \rho^- \omega K^- D^-, D^+ \rightarrow \pi^+ D^-, \rho^- \rightarrow \pi^-\pi^-, \\ \omega \rightarrow \pi^0 \pi^+\pi^-, \bar{K}^0 \rightarrow K_S, D^{*+} \rightarrow \pi^+ D^0, D^0 \rightarrow \pi^0 \eta K_S, D^0 \rightarrow \mu^+ \nu_\mu K^{*-}, \eta \rightarrow \gamma \gamma, \end{array}$		
78	$K_S ightarrow \pi^+\pi^-, K^{*-} ightarrow \pi^-ar{K}^0, ar{K}^0 ightarrow K_S, K_S ightarrow \pi^+\pi^-$	1	78
	$(e^+e^- \to e^-\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K_S\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow e^{+}\nu_{e}\eta D^{-}, \bar{B}^{0} \rightarrow \rho^{0}\pi^{-}D^{*+}, \eta \rightarrow \pi^{0}\pi^{+}\pi^{-}, D^{-} \rightarrow e^{-}\bar{\nu}_{e}K_{1}^{0},$		
79	$\rho^0 \to \pi^+\pi^-, D^{*+} \to \pi^+D^0, K_1^0 \to \pi^0\pi^-K^+, D^0 \to e^+\nu_e K^-$	1	79
	$(e^{+}e^{-} \to e^{+}e^{+}e^{-}\nu_{e}\nu_{e}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\pi^{+}\pi^{-}\rho^{+}\eta\eta\bar{D}^{*-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+},$		
80	$\eta \to \pi^0 \pi^+ \pi^-, \eta \to \pi^0 \pi^+ \pi^-, \bar{D}^{*-} \to \pi^- \bar{D}^0, D^{*+} \to \pi^0 D^+, \bar{D}^0 \to \pi^- K^+, D^+ \to e^+ \nu_e \bar{K}^*,$	1	80
	$\bar{K}^* \to \pi^+ K^- \\ (e^+ e^- \to e^+ \nu_e \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$		
	(e e \neg e $\nu_{e}\mu$ ν_{μ} n n n n n n n n n n n n Λ Λ $\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$)		

index	event tree	nEvts	nCmltEvts
	(event initial-final states)		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \tau^{+}\nu_{\tau}D_{0}^{*-}, \bar{B}^{0} \to \pi^{0}\pi^{-}\omega K^{0}\bar{K}^{0}\bar{K}^{*}D^{*+}, \tau^{+} \to \mu^{+}\nu_{\mu}\bar{\nu}_{\tau}, D_{0}^{*-} \to \pi^{-}\bar{D}^{0},$		
81	$\omega \to \pi^0 \pi^+ \pi^-, K^0 \to K_S, \bar{K}^0 \to K_L, \bar{K}^* \to \pi^+ K^-, D^{*+} \to \pi^0 D^+, \bar{D}^0 \to \pi^+ \pi^- \pi^- K^+,$	1	81
	$K_S \to \pi^+ \pi^-, D^+ \to \pi^0 \pi^+ K_S, K_S \to \pi^+ \pi^-$	_	01
	$(e^+e^- \to \mu^+\nu_\mu\nu_\tau\bar{\nu}_\tau K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow D^{-}a_{1}^{+}, \bar{B}^{0} \rightarrow \pi^{+}\pi^{-}D^{+}D_{s}^{*-}, D^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}\omega, a_{1}^{+} \rightarrow \rho^{0}\pi^{+},$		
82	$D^{+} \to \pi^{+}\pi^{+}K^{-}, D_{s}^{*-} \to D_{s}^{-}\gamma, \omega \to \pi^{0}\pi^{+}\pi^{-}, \rho^{0} \to \pi^{+}\pi^{-}, D_{s}^{-} \to \rho^{-}\phi, \rho^{-} \to \pi^{0}\pi^{-},$	1	82
	$\phi \to K^+K^-$		
	$(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma)$		
	$e^+e^- o \Upsilon(4S), \Upsilon(4S) o B^0 \bar{B}^0, B^0 o ho^+ \eta \omega D^-, \bar{B}^0 o \pi^+ D^0 D^s, ho^+ o \pi^0 \pi^+, \eta o \pi^+ \pi^-,$		
83	$\omega \to \pi^{0} \gamma, D^{-} \to \mu^{-} \bar{\nu}_{\mu} K^{*}, D^{0} \to K_{S} K^{+} K^{-}, D_{s}^{-} \to \rho^{-} \phi, K^{*} \to \pi^{-} K^{+}, K_{S} \to \pi^{+} \pi^{-}, \\ \rho^{-} \to \pi^{0} \pi^{-}, \phi \to \pi^{-} \rho^{+}, \rho^{+} \to \pi^{0} \pi^{+}$	1	83
	$\rho \to \pi^+\pi^-, \phi \to \pi^-\rho^+, \rho^+ \to \pi^+\pi^-$ $(e^+e^- \to \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}K^{0}D^{-}, \bar{B}^{0} \to \pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}D^{*+}, K^{0} \to K_{S}, D^{-} \to \pi^{-}K^{+}K^{-},$		
84	$D^{*+} \to \pi^{+}D^{0}, K_{S} \to \pi^{0}\pi^{0}, D^{0} \to \rho^{+}K^{*-}, \rho^{+} \to \pi^{0}\pi^{+}, K^{*-} \to \pi^{0}K^{-}$	1	84
04	$(e^+e^- \to \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	04
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{+}\rho^{-}\bar{D}^{*0}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}\eta D^{+}, \rho^{-} \to \pi^{0}\pi^{-}, \bar{D}^{*0} \to \pi^{0}\bar{D}^{0},$		
	$\eta \to \pi^0 \pi^+ \pi^-, D^+ \to \mu^+ \nu_\mu \bar{K}^0, \bar{D}^0 \to K_S \eta', \bar{K}^0 \to K_L, K_S \to \pi^0 \pi^0, \eta' \to \pi^+ \pi^- \eta,$		
85	$n ightarrow \pi^0 \pi^0 \pi^0$	1	85
	$(e^+e^- ightarrow e^- ar{ u}_e \mu^+ u_\mu K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \gamma \gamma$		
	$\frac{(e^+e^- \to e^- \bar{\nu}_e \mu^+ \nu_\mu K_L \pi^+ \pi^+ \pi^- \pi^- \pi^- \gamma \gamma$		
0.0	$ar{D}^{*-} o \pi^- ar{D}^0, \omega o \pi^0 \pi^+ \pi^-, ar{D}^{*-} o \pi^- ar{D}^0, \eta o \pi^0 \pi^+ \pi^-, \phi o K^+ K^-, ar{D}^0 o e^- ar{ u}_e ho^+,$	1	0.0
86	$ar{D}^0 ightarrow e^-ar{ u}_c K^+$, $ ho^+ ightarrow \pi^0 \pi^+$	1	86
	$\frac{(e^{+}e^{-} \to e^{-}e^{-}\bar{\nu}_{e}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\pi^{-}\rho^{+}D^{-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D_{2}^{*+}, \rho^{+} \to \pi^{0}\pi^{+}, D^{-} \to \mu^{-}\bar{\nu}_{\mu}K^{*},}$		
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to B^0\bar{B}^0, B^0 \to \pi^+\pi^-\rho^+D^-, \bar{B}^0 \to e^-\bar{\nu}_e D_2^{*+}, \rho^+ \to \pi^0\pi^+, D^- \to \mu^-\bar{\nu}_\mu K^*,$		
87	$D_2^{*+} ightarrow \pi^+ D^0, K^* ightarrow \pi^- K^+, D^0 ightarrow K_L \omega, \omega ightarrow \pi^0 \pi^+ \pi^-$	1	87
	$(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\pi^{+}\eta D^{-}, \bar{B}^{0} \to \pi^{-}\rho^{+}K^{0}K^{*-}D^{+}, \rho^{0} \to \pi^{+}\pi^{-}, \eta \to \gamma\gamma,$		
88	$D^{-} \to \pi^{-}\pi^{-}K^{+}, \rho^{+} \to \pi^{0}\pi^{+}, K^{0} \to K_{L}, K^{*-} \to \pi^{0}K^{-}, D^{+} \to \rho^{0}\pi^{+}, K_{L} \to \mu^{+}\nu_{\mu}\pi^{-},$	1	88
	$ ho^0 ightarrow \pi^+\pi^-$	1	
	$(e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)$		
89	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}p\bar{\Sigma}_{c}^{*-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D_{0}^{*+}, \rho^{0} \to \pi^{+}\pi^{-}, \bar{\Sigma}_{c}^{*-} \to \pi^{0}\bar{\Lambda}_{c}^{-},$		
	$D_0^{*+} \to \pi^+ D^0, \bar{\Lambda}_c^- \to K^+ \bar{\Delta}^{++}, D^0 \to \pi^+ \pi^- \bar{K}^*, \bar{\Delta}^{++} \to \pi^- \bar{p}, \bar{K}^* \to \pi^+ K^-$	1	89
	$(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}p\bar{p}\gamma\gamma)$		
	$e^+e^- o \Upsilon(4S), \Upsilon(4S) o B^0 \bar{B}^0, B^0 o \mu^+ \nu_\mu \bar{D}^{*-}, \bar{B}^0 o \pi^- \pi^- D^+ \bar{n}p, \bar{D}^{*-} o \pi^0 D^-, D^+ o K_S a_1^+,$		0-
90	$D^- \to \pi^0 \pi^0 \pi^- \pi^- K^+, K_S \to \pi^0 \pi^0, a_1^+ \to \pi^+ f_0(600)$	1	90
	$(e^+e^- \to \mu^+\nu_\mu\pi^+\pi^-\pi^-\pi^-\pi^-K^+\bar{n}pf_0(600)\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		

index	event tree (event initial-final states)	nEvts	nCmltEvts
91	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, \bar{B}^{0} \to \pi^{0}\pi^{+}\pi^{-}\rho^{+}D^{-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, \rho^{+} \to \pi^{0}\pi^{+}, D^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{-}K^{+}, D^{+} \to \pi^{0}D^{+}, D^{+} \to \pi^{+}\pi^{+}K^{-} $ $(e^{+}e^{-} \to \mu^{-}\mu^{-}\bar{\nu}_{\mu}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	91
92	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{-}K^{*+}J/\psi, \bar{B}^{0} \to \pi^{0}\pi^{+}K^{-}\eta_{c}(2S), K^{*+} \to \pi^{0}K^{+}, J/\psi \to e^{+}e^{-}, \\ \pi^{0} \to e^{+}e^{-}, \eta_{c}(2S) \to \eta\Sigma^{+}\bar{\Sigma}^{-}, \eta \to \pi^{0}\pi^{0}\pi^{0}, \Sigma^{+} \to \pi^{+}n, \bar{\Sigma}^{-} \to \pi^{0}\bar{p} \\ (e^{+}e^{-} \to e^{+}e^{+}e^{-}e^{-}\pi^{+}\pi^{+}\pi^{-}K^{+}K^{-}n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	92
93	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to \bar{K}^{0}\psi', \bar{B}^{0} \to \pi^{-}\rho^{+}\rho^{-}D^{+}, \bar{K}^{0} \to K_{S}, \psi' \to \pi^{0}\pi^{0}J/\psi,$ $\rho^{+} \to \pi^{0}\pi^{+}, \rho^{-} \to \pi^{0}\pi^{-}, D^{+} \to \bar{K}^{*}a_{1}^{+}, K_{S} \to \pi^{+}\pi^{-}, J/\psi \to \mu^{+}\mu^{-}, \bar{K}^{*} \to \pi^{+}K^{-},$ $a_{1}^{+} \to \pi^{+}f_{0}(600)$ $(e^{+}e^{-} \to \mu^{+}\mu^{-}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}f_{0}(600)\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	93
94	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\rho^{+}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{-}K^{0}D^{+}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+},$ $\bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, K^{0} \to K_{L}, D^{+} \to K_{L}a_{1}^{+}, \bar{D}^{0} \to \pi^{-}K^{+}, a_{1}^{+} \to \pi^{+}f_{0}(600)$ $(e^{+}e^{-} \to K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}f_{0}(600)\gamma\gamma)$	1	94
95	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{+}\omega D^{-}, \bar{B}^{0} \to \pi^{0}\omega K^{0}K^{-}D^{+}, \rho^{+} \to \pi^{0}\pi^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, D^{-} \to \pi^{-}\pi^{-}K^{+}, \pi^{0} \to e^{+}e^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, K^{0} \to K_{S}, D^{+} \to \mu^{+}\nu_{\mu}\bar{K}^{*}, K_{S} \to \pi^{+}\pi^{-}, K^{0} \to K_{S}, D^{+} \to \mu^{+}\nu_{\mu}\bar{K}^{*}, K_{S} \to \pi^{+}\pi^{-}, K^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}\bar{D}^{*-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D^{*+} \to \pi^{+}D^{0}, K^{0}\bar{B}^{0}, $	1	95
96	$D^{0} \to K^{+}a_{1}^{-}, D^{0} \to \pi^{0}\pi^{+}K^{-}, a_{1}^{-} \to \pi^{-}f_{0}(600)$ $(e^{+}e^{-} \to e^{+}e^{-}\nu_{e}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}f_{0}(600)\gamma\gamma)$	1	96
97	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{*+}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\pi^{-}D^{*+}\bar{\Delta}^{+}\bar{\Delta}^{+}, K^{*+} \to \pi^{+}K^{0}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$ $D^{*+} \to \pi^{+}D^{0}, \Delta^{+} \to \pi^{+}n, \bar{\Delta}^{+} \to \pi^{0}\bar{p}, K^{0} \to K_{L}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, D^{0} \to \pi^{+}\pi^{-}K_{S},$ $K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	97
98	$(e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to D_{2}^{*-}D_{s}^{*+}, \bar{B}^{0} \to \pi^{+}\pi^{-}D^{+}D_{s}^{-}, D_{2}^{*-} \to \pi^{0}\bar{D}^{*-}, D_{s}^{*+} \to D_{s}^{+}\gamma,$ $D^{+} \to \pi^{+}\bar{K}_{1}^{'0}, D_{s}^{-} \to e^{-}\bar{\nu}_{e}\eta', \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D_{s}^{+} \to \pi^{+}\phi, \bar{K}_{1}^{'0} \to \pi^{+}K^{*-}, \eta' \to \pi^{0}\pi^{0}\eta,$ $\bar{D}^{0} \to \pi^{-}\omega K^{+}, \phi \to \pi^{-}\rho^{+}, K^{*-} \to \pi^{-}\bar{K}^{0}, \eta \to \pi^{0}\pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+},$ $\bar{K}^{0} \to K_{S}, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	98
99	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K_{L}\eta_{c}, \bar{B}^{0} \to \pi^{-}\pi^{-}\rho^{+}D^{*+}, \eta_{c} \to \pi^{0}K^{0}\bar{K}^{0}\bar{K}^{0}K^{*}, \rho^{+} \to \pi^{0}\pi^{+},$ $D^{*+} \to \pi^{0}D^{+}, K^{0} \to K_{S}, \bar{K}^{0} \to K_{L}, \bar{K}^{0} \to K_{S}, K^{*} \to \pi^{-}K^{+}, D^{+} \to \pi^{0}\pi^{+}K_{S},$ $K_{S} \to \pi^{0}\pi^{0}, K_{S} \to \pi^{+}\pi^{-}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	99
100	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{0}\rho^{0}\pi^{+}\bar{D}^{*-}, \bar{B}^{0} \to K^{*}K^{-}D^{+}, \rho^{0} \to \pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$ $K^{*} \to \pi^{0}K^{0}, D^{+} \to \pi^{+}\pi^{+}K^{-}, \bar{D}^{0} \to \pi^{-}\rho^{+}, K^{0} \to K_{S}, \rho^{+} \to \pi^{0}\pi^{+}, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	100

index	event tree (event initial-final states)	nEvts	nCmltEvts
	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\rho^-\eta\bar{D}^0, \bar{B}^0 \rightarrow \pi^-\rho^+\rho^-D^+, \rho^- \rightarrow \pi^0\pi^-, \eta \rightarrow \pi^0\pi^+\pi^-,$		
	$\bar{D}^0 \rightarrow \pi^0 \pi^+ \pi^- K_S, \rho^+ \rightarrow \pi^0 \pi^+, \rho^- \rightarrow \pi^0 \pi^-, D^+ \rightarrow e^+ \nu_e \bar{K}^0, \pi^0 \rightarrow e^+ e^-, K_S \rightarrow \pi^+ \pi^-,$		
101	$E \rightarrow K K K_S, P \rightarrow K K, P \rightarrow K K, D \rightarrow E \nu_e K, K \rightarrow K K_S \rightarrow K K, K_S \rightarrow K^0 \pi^0$	1	101
	$(e^+e^- \to e^+e^+e^-\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{0}\eta\omega\bar{D}^{0}, \bar{B}^{0} \to \pi^{+}\pi^{-}D^{+}D_{s}^{-}, \eta \to \pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \psi \to \pi^{0}\pi^{0}\pi^{0}, \psi \to \pi^{0}\pi^{0}, \psi \to \pi^{0}\pi^{0$		
102	$\bar{D}^0 \to \pi^0 \pi^- K^+, D^+ \to \pi^0 \pi^+ K_S, D_s^- \to e^- \bar{\nu}_e \eta, K_S \to \pi^+ \pi^-, \eta \to \pi^+ \pi^-$	1	102
	$(e^+e^- o e^-ar u_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\rho^{+}\omega\omega D^{-}, \bar{B}^{0} \to \pi^{0}\pi^{0}\rho^{0}\pi^{-}\pi^{-}\rho^{+}D^{*+}, \rho^{+} \to \pi^{0}\pi^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \psi^{+} \to \pi^{0}\pi^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \psi^{+} \to \pi^{0}\pi^{-}, \psi^{+} \to \pi^{0}\pi^{-$		
103	$\omega \to \pi^0 \pi^+ \pi^-, D^- \to \pi^- \pi^- K^+, \rho^0 \to \pi^+ \pi^-, \rho^+ \to \pi^0 \pi^+, D^{*+} \to \pi^+ D^0, D^0 \to \pi^0 \pi^+ K^-$	1	103
	$(e^+e^-\to\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to D^{-}D_{s}^{*+}, \bar{B}^{0} \to \rho^{0}\pi^{-}\rho^{+}D^{0}, D^{-} \to \pi^{0}\pi^{-}K_{S}, D_{s}^{*+} \to D_{s}^{+}\gamma,$		
104	$\rho^{0} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+}, D^{0} \to \mu^{+}\nu_{\mu}K^{-}, K_{S} \to \pi^{+}\pi^{-}, D_{s}^{+} \to \pi^{0}\pi^{+}\omega, \omega \to \pi^{0}\pi^{+}\pi^{-}$	1	104
	$(e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$ $+$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\rho^{0}\pi^{+}\pi^{+}\pi^{-}\omega D^{-}, \bar{B}^{0} \to \pi^{+}D^{*0}D_{s}^{-}, \rho^{0} \to \pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{-}, \omega \to $		
105	$D \to \pi \pi K, D \to \pi D, D_s \to e \nu_e \eta, K \to \pi K, D \to \pi \pi K, \eta \to \pi \pi \eta, $ $\bar{K}^* \to \pi^+ K^-, \eta \to \gamma \gamma$	1	105
	$(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{+}K^{+}K^{-}\bar{D}^{*-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \rho^{+} \to \pi^{0}\pi^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$		
106	$D^{*+} \to \pi^0 D^+, \bar{D}^0 \to K_L \pi^+ \pi^-, D^+ \to \pi^0 \pi^+ K_S, K_S \to \pi^0 \pi^0$	1	106
	$(e^+e^- \to e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$		
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to B^0 \bar{B}^0, B^0 \to K^0 J/\psi, \bar{B}^0 \to \pi^0 \pi^+ \pi^- \pi^- D^{*+}, K^0 \to K_S, J/\psi \to e^+ e^-,$		
107	$D^{*+} \to \pi^+ D^0, K_S \to \pi^+ \pi^-, D^0 \to \pi^0 \pi^+ \pi^- K_S, K_S \to \pi^+ \pi^-$	1	107
	$(e^{+}e^{-} \rightarrow e^{+}e^{-}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{0}\pi^{+}\rho^{-}\bar{D}^{*0}, \bar{B}^{0} \to \rho^{-}\eta\omega\omega D^{*+}, \rho^{-} \to \pi^{0}\pi^{-}, \bar{D}^{*0} \to \bar{D}^{0}\gamma,$		
108	$\rho^- \pi^0 \pi^-, \eta \pi^0 \pi^0 \pi^0, \omega \pi^0 \pi^+ \pi^-, \omega \pi^0 \pi^+ \pi^-, D^{*+} \pi^0 D^+, \bar{D}^0 \pi^- \omega K^+,$	1	108
	$\pi^0 o e^+ e^-, D^+ o \pi^0 \pi^+ ar{K}^*, \omega o \pi^0 \gamma, ar{K}^* o \pi^0 ar{K}^0, ar{K}^0 o K_L, K_L o \mu^- u_\mu \pi^+$	_	
	$(e^+e^- \to e^+e^-\mu^-\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma$		
109	$e^+e^- ightarrow 1 (4S), 1 (4S) ightarrow B B , B ightarrow \pi^+\pi^- D^- , B ightarrow \pi^+\pi^- \pi^- D^+ , D^- ightarrow \pi^+\pi^- \gamma^- \gamma^- \gamma^- \gamma^- \gamma^- \gamma^- \gamma^- \gamma^- \gamma^- \gamma$	1	109
109	$(e^+e^- ightarrow\mu^-ar{ u}_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma)$	1	109
	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \rightarrow \rho^{0}\pi^{-}D^{*+}, \bar{B}^{0} \rightarrow \bar{K}^{0}\bar{\Sigma}^{*0}\Sigma_{c}^{*0}, \rho^{0} \rightarrow \pi^{+}\pi^{-}, D^{*+} \rightarrow \pi^{+}D^{0},$		
	$ar{K}^0 ightarrow K_L, ar{\Sigma}^{*0} ightarrow \pi^0 ar{\Lambda}, \Sigma_c^{*0} ightarrow \pi^- \Lambda_c^+, D^0 ightarrow \pi^0 \pi^0 ar{K}^*, ar{\Lambda} ightarrow \pi^+ ar{p}, \Lambda_c^+ ightarrow \pi^+ \eta \Lambda,$		
110	$ar{K}^* o \pi^+ K^-, \eta o \pi^0 \pi^0 \pi^0, \Lambda o \pi^- p$	1	110
	$(e^+e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- p \bar{p} \gamma \gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to D^{*+}D^{*-}_{s}, \bar{B}^{0} \to \rho^{0}\pi^{+}\bar{\Delta}^{++}\Lambda^{+}_{c}, D^{*+} \to \pi^{0}D^{+}, D^{*-}_{s} \to \pi^{0}D^{-}_{s},$		
111	$\rho^0 \to \pi^+\pi^-, \dot{\bar{\Delta}}^{++} \to \pi^-\bar{p}, \Lambda_c^+ \to \rho^0\Sigma^+, D^+ \to \pi^0K_L\pi^+, D_s^- \to \mu^-\bar{\nu}_\mu\eta, \rho^0 \to \pi^+\pi^-,$	1	111
111	$\Sigma^+ o \pi^0 p, \eta o \gamma \gamma$	1	111
	$(e^+e^- \to \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- p\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		

index	event tree (event initial-final states)	nEvts	nCmltEvts
112	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}D_{2}^{*-}, \bar{B}^{0} \to \rho^{-}D^{*+}, D_{2}^{*-} \to \pi^{-}\bar{D}^{0}, \rho^{-} \to \pi^{0}\pi^{-},$ $D^{*+} \to \pi^{+}D^{0}, \bar{D}^{0} \to \pi^{0}K_{1}^{0}, D^{0} \to K^{-}a_{1}^{+}, K_{1}^{0} \to \omega K^{0}, a_{1}^{+} \to \pi^{0}\rho^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-},$ $K^{0} \to K_{S}, \rho^{+} \to \pi^{0}\pi^{+}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	112
113	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}D^{-}, \bar{B}^{0} \to D_{s}^{*+}\bar{\Delta}^{+}\Lambda, D^{-} \to \pi^{-}\pi^{-}K^{+}, D_{s}^{*+} \to D_{s}^{+}\gamma,$ $\bar{\Delta}^{+} \to \pi^{-}\bar{n}, \Lambda \to \pi^{0}n, D_{s}^{+} \to \pi^{+}\eta, \eta \to \pi^{0}\pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}n\bar{n}\gamma\gamma\gamma\gamma\gamma)$	1	113
114	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{+}\pi^{+}\pi^{-}\bar{D}^{*-}, \bar{B}^{0} \to K^{-}D^{*+}\bar{D}^{*0}, \bar{D}^{*-} \to \pi^{0}D^{-}, D^{*+} \to \pi^{+}D^{0},$ $\bar{D}^{*0} \to \pi^{0}\bar{D}^{0}, D^{-} \to K_{L}\pi^{+}\pi^{-}K^{-}, D^{0} \to \pi^{-}\rho^{+}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, \rho^{+} \to \pi^{0}\pi^{+}$ $(e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	114
115	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{*-}D'^{+}_{s1}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D'^{+}_{s1} \to \pi^{0}D^{*+}_{s1}, K^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D'^{+}_{s1} \to \pi^{0}D^{*+}_{s1}, K^{0} \to K_{L}K^{+}K^{-}_{s1}, K^{0} \to K_{L}K^{+}K^{-$	1	115
116	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to D^{*+}D_{s}^{*-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D_{1}^{\prime+}, D^{*+} \to \pi^{+}D^{0}, D_{s}^{*-} \to D_{s}^{-}\gamma,$ $D_{1}^{\prime+} \to \pi^{0}D^{*+}, D^{0} \to \pi^{0}\pi^{+}K^{-}, D_{s}^{-} \to \rho^{-}\eta, D^{*+} \to \pi^{+}D^{0}, \rho^{-} \to \pi^{0}\pi^{-}, \eta \to \pi^{0}\pi^{+}\pi^{-},$ $D^{0} \to \pi^{0}\pi^{+}\pi^{-}K_{S}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	116
117	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \pi^{0}\pi^{+}\eta\bar{K}^{0}K^{*}D^{-}, \bar{B}^{0} \to D^{*+}D_{s}^{*-}, \eta \to \pi^{+}\pi^{-}, \bar{K}^{0} \to K_{L},$ $K^{*} \to \pi^{-}K^{+}, D^{-} \to \pi^{0}\pi^{-}K^{*}, D^{*+} \to \pi^{+}D^{0}, D_{s}^{*-} \to D_{s}^{-}\gamma, K^{*} \to \pi^{-}K^{+}, D^{0} \to e^{+}\nu_{e}K^{*-},$ $D_{s}^{-} \to \rho^{-}\eta', K^{*-} \to \pi^{0}K^{-}, \rho^{-} \to \pi^{0}\pi^{-}, \eta' \to \pi^{+}\pi^{-}\eta, \eta \to \gamma\gamma$ $(e^{+}e^{-} \to e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	117
118	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \rho^{-}\eta\bar{K}^{0}K^{+}\bar{D}^{*0}, \bar{B}^{0} \rightarrow \pi^{-}\eta D^{*+}, \rho^{-} \rightarrow \pi^{0}\pi^{-}, \eta \rightarrow \pi^{0}\pi^{0}\pi^{0},$ $\bar{K}^{0} \rightarrow K_{S}, \bar{D}^{*0} \rightarrow \bar{D}^{0}\gamma, \eta \rightarrow \pi^{0}\pi^{0}\pi^{0}, D^{*+} \rightarrow \pi^{+}D^{0}, K_{S} \rightarrow \pi^{0}\pi^{0}, \bar{D}^{0} \rightarrow \pi^{0}\pi^{-}K^{+},$ $D^{0} \rightarrow e^{+}\nu_{e}K^{-}$ $(e^{+}e^{-} \rightarrow e^{+}\nu_{e}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma)$	1	118
119	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \pi^{0}\pi^{0}\bar{D}^{0}, B^{0} \to \pi^{0}\rho^{0}\rho^{+}\omega D^{-}, \bar{D}^{0} \to \rho^{0}\pi^{-}K^{+}, \rho^{0} \to \pi^{+}\pi^{-},$ $\rho^{+} \to \pi^{0}\pi^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, D^{-} \to e^{-}\bar{\nu}_{e}\pi^{-}K^{+}, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	119
120	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{0}D^{*+}\bar{D}^{*-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, K^{0} \to K_{S}, D^{*+} \to \pi^{0}D^{+},$ $\bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D^{*+} \to \pi^{+}D^{0}, K_{S} \to \pi^{+}\pi^{-}, D^{+} \to \pi^{+}\pi^{+}K^{-}, \bar{D}^{0} \to \pi^{-}K_{S}K^{+}, D^{0} \to K_{L}\pi^{-}K^{+},$ $K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma)$	1	120
121	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, D^{*+} \to \pi^{+}\bar{D}^{0}, D^{*+} \to \pi^{+}D^{0},$ $D^{0} \to \pi^{0}\pi^{+}K^{-}, D^{0} \to \rho^{+}K^{*-}, \rho^{+} \to \pi^{0}\pi^{+}, K^{*-} \to \pi^{-}\bar{K}^{0}, \bar{K}^{0} \to K_{L}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}K^{-}\gamma\gamma\gamma\gamma)$	1	121

index	event tree (event initial-final states)	nEvts	nCmltEvts
122	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{+}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{+}\pi^{-}\omega D^{*0}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \omega \to \pi^{0}\pi^{+}\pi^{-}, D^{*0} \to \pi^{0}D^{0}, \bar{D}^{0} \to \pi^{-}K_{S}K^{+}, D^{0} \to \mu^{+}\nu_{\mu}\pi^{-}\bar{K}^{0}, K_{S} \to \pi^{+}\pi^{-}, \bar{K}^{0} \to K_{L}$ $(e^{+}e^{-} \to \mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	122
123	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, \bar{B}^{0} \to \mu^{+}\nu_{\mu}\bar{D}^{*-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D^{*+} \to \pi^{+}D^{0},$ $\bar{D}^{0} \to e^{-}\bar{\nu}_{e}K^{+}, D^{0} \to \rho^{+}K^{*-}, \rho^{+} \to \pi^{0}\pi^{+}, K^{*-} \to \pi^{0}K^{-}$ $(e^{+}e^{-} \to e^{-}e^{-}\bar{\nu}_{e}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma)$	1	123
124	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \tau^{+}\nu_{\tau}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\omega K^{*-}D_{s}^{+}, \tau^{+} \to \bar{\nu}_{\tau}\pi^{0}\pi^{+}, \bar{D}^{*-} \to \pi^{0}D^{-},$ $\omega \to \pi^{0}\pi^{+}\pi^{-}, K^{*-} \to \pi^{-}\bar{K}^{0}, D_{s}^{+} \to \pi^{+}f_{0}(980), D^{-} \to e^{-}\bar{\nu}_{e}K^{0}, \bar{K}^{0} \to K_{L}, f_{0}(980) \to \pi^{+}\pi^{-},$ $K^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\nu_{\tau}\bar{\nu}_{\tau}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	124
125	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{-}\bar{K}^{0}K^{+}\bar{D}^{*0}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}\bar{D}^{+}, \bar{K}^{0} \to K_{L}, \bar{D}^{*0} \to \pi^{0}\bar{D}^{0},$ $D^{+} \to K_{L}K^{*+}, \bar{D}^{0} \to \omega K_{S}, K^{*+} \to \pi^{+}K^{0}, \omega \to \pi^{0}\pi^{+}\pi^{-}, K_{S} \to \pi^{0}\pi^{0}, K^{0} \to K_{S},$ $\pi^{0} \to e^{+}e^{-}, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{+}e^{-}\mu^{-}\bar{\nu}_{\mu}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}D_{1}^{'-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, D_{1}^{'-} \to \pi^{-}\bar{D}^{*0}, D^{*+} \to \pi^{0}D^{+},$	1	125
126	$\bar{D}^{*0} \to \pi^{0}\bar{D}^{0}, D^{+} \to e^{+}\nu_{e}\bar{K}^{*}, \bar{D}^{0} \to \rho^{-}K^{*+}, \bar{K}^{*} \to \pi^{+}K^{-}, \rho^{-} \to \pi^{0}\pi^{-}, K^{*+} \to \pi^{+}K^{0}, K^{0} \to K_{S}, K_{S} \to \pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\mu^{+}\mu^{-}\nu_{u}\bar{\nu}_{u}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	126
127	$\begin{array}{c} e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \pi^{0}\pi^{+}\pi^{+}\pi^{-}\bar{D}^{*-}, \bar{B}^{0} \rightarrow D_{2}^{*+}D_{s}^{-}, \pi^{0} \rightarrow e^{+}e^{-}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, \\ D_{2}^{*+} \rightarrow \pi^{+}D^{0}, D_{s}^{-} \rightarrow \pi^{0}\pi^{0}\pi^{-}, \bar{D}^{0} \rightarrow \pi^{0}\pi^{-}K^{+}, D^{0} \rightarrow \rho^{+}K^{*-}, \rho^{+} \rightarrow \pi^{0}\pi^{+}, K^{*-} \rightarrow \pi^{-}\bar{K}^{0}, \\ \bar{K}^{0} \rightarrow K_{L}, K_{L} \rightarrow \pi^{0}\pi^{+}\pi^{-} \\ (e^{+}e^{-} \rightarrow e^{+}e^{-}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma) \end{array}$	1	127
128	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \bar{B}^{0} \to \bar{K}^{*}D^{+}D^{-}, D^{*+} \to \pi^{+}D^{0}, \bar{K}^{*} \to \pi^{+}K^{-}, D^{+} \to e^{+}\nu_{e}\bar{K}^{0}, D^{-} \to e^{-}\bar{\nu}_{e}K^{*}, D^{0} \to \pi^{0}\pi^{+}K^{-}, \bar{K}^{0} \to K_{S}, K^{*} \to \pi^{0}K^{0}, K_{S} \to \pi^{+}\pi^{-}, K^{0} \to K_{L} $ $(e^{+}e^{-} \to e^{+}e^{-}e^{-}\nu_{e}\bar{\nu}_{e}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}K^{-}K^{-}\gamma\gamma\gamma\gamma)$	1	128
129	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}D_{1}^{\prime-}, \bar{B}^{0} \to \pi^{+}D^{0}D_{s}^{-}, D_{1}^{\prime-} \to \pi^{-}\bar{D}^{*0}, D^{0} \to \pi^{0}\pi^{+}\pi^{-}K_{S},$ $D_{s}^{-} \to \tau^{-}\bar{\nu}_{\tau}, \bar{D}^{*0} \to \pi^{0}\bar{D}^{0}, K_{S} \to \pi^{+}\pi^{-}, \tau^{-} \to e^{-}\bar{\nu}_{e}\nu_{\tau}, \bar{D}^{0} \to \pi^{+}\pi^{-}K_{S}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{+}e^{-}\nu_{e}\bar{\nu}_{e}\nu_{\tau}\bar{\nu}_{\tau}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma)$	1	129
130	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{*-}a_{1}^{+}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \bar{D}^{*-} \to \pi^{0}D^{-}, a_{1}^{+} \to \pi^{0}\rho^{+},$ $D^{*+} \to \pi^{0}D^{+}, D^{-} \to \pi^{-}\pi^{-}K^{+}, \rho^{+} \to \pi^{0}\pi^{+}, D^{+} \to e^{+}\nu_{e}\bar{K}^{0}, \bar{K}^{0} \to K_{L}, K_{L} \to e^{-}\nu_{e}\pi^{+}$ $(e^{+}e^{-} \to e^{+}e^{-}e^{-}\nu_{e}\nu_{e}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	130
131	$(e^{+}e^{-} \to e^{+}e^{-}e^{-}\nu_{e}\nu_{e}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \eta\bar{K}^{0}K^{+}\bar{D}^{*-}, \bar{B}^{0} \to \rho^{-}\eta D^{+}, \eta \to \pi^{0}\pi^{+}\pi^{-}, \bar{K}^{0} \to K_{S},$ $\bar{D}^{*-} \to \pi^{0}D^{-}, \rho^{-} \to \pi^{0}\pi^{-}, \eta \to \gamma\gamma, D^{+} \to \pi^{0}\pi^{0}\pi^{+}, K_{S} \to \pi^{0}\pi^{0}, D^{-} \to K_{L}a_{1}^{-},$ $a_{1}^{-} \to \rho^{0}\pi^{-}, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	131

index	event tree (event initial-final states)	nEvts	nCmltEvts
132	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to \rho^{-}D^{+}, \bar{B}^{0} \to \rho^{0}\pi^{-}\omega D^{+}, \rho^{-} \to \pi^{0}\pi^{-}, D^{+} \to e^{+}\nu_{e}\pi^{+}K^{-},$ $\rho^{0} \to \pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, D^{+} \to \pi^{+}\pi^{+}K^{-}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}K^{-}\gamma\gamma\gamma\gamma)$	1	132
133	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \bar{D}^{*-}D_{s}^{+}, B^{0} \to e^{+}\nu_{e}D_{2}^{*-}, \bar{D}^{*-} \to \pi^{0}D^{-}, D_{s}^{+} \to \mu^{+}\nu_{\mu}\phi,$ $D_{2}^{*-} \to \pi^{-}\bar{D}^{*0}, D^{-} \to e^{-}\bar{\nu}_{e}\pi^{-}K^{+}, \phi \to K^{+}K^{-}, \bar{D}^{*0} \to \bar{D}^{0}\gamma, \bar{D}^{0} \to K^{+}a_{1}^{-}, a_{1}^{-} \to \rho^{0}\pi^{-},$ $\rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{+}e^{-}\nu_{e}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{+}K^{-}\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\pi^{-}\rho^{+}\bar{D}^{*-}, \bar{B}^{0} \to D_{2}^{*+}D_{s}^{-}, \rho^{+} \to \pi^{0}\pi^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$	1	133
134	$\begin{array}{c} e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \pi^{+}\pi^{-}\rho^{+}\bar{D}^{*-}, \bar{B}^{0} \rightarrow D_{2}^{*+}D_{s}^{-}, \rho^{+} \rightarrow \pi^{0}\pi^{+}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, \\ D_{2}^{*+} \rightarrow \pi^{+}D^{0}, D_{s}^{-} \rightarrow \tau^{-}\bar{\nu}_{\tau}, \bar{D}^{0} \rightarrow \pi^{0}K_{L}\pi^{+}\pi^{-}, D^{0} \rightarrow \rho^{+}K^{*-}, \tau^{-} \rightarrow \nu_{\tau}\pi^{0}\pi^{-}, \rho^{+} \rightarrow \pi^{0}\pi^{+}, \\ K^{*-} \rightarrow \pi^{-}\bar{K}^{0}, \bar{K}^{0} \rightarrow K_{L} \\ (e^{+}e^{-} \rightarrow \nu_{\tau}\bar{\nu}_{\tau}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma) \\ e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \pi^{0}\omega K^{+}D_{s}^{*-}, \bar{B}^{0} \rightarrow \mu^{-}\bar{\nu}_{\mu}D^{*+}, \omega \rightarrow \pi^{0}\pi^{+}\pi^{-}, D_{s}^{*-} \rightarrow D_{s}^{-}\gamma, \end{array}$	1	134
135	$D^{*+} \to \pi^{+}D^{0}, D_{s}^{-} \to \rho^{-}\eta', D^{0} \to \pi^{+}\pi^{+}\pi^{-}K^{-}, \rho^{-} \to \pi^{0}\pi^{-}, \eta' \to \rho^{0}\gamma, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	135
136	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to D_{s}^{*+}D_{1}^{\prime-}, \bar{B}^{0} \to \rho^{0}\pi^{-}D^{*+}, D_{s}^{*+} \to D_{s}^{+}\gamma, D_{1}^{\prime-} \to \pi^{-}\bar{D}^{*0},$ $\rho^{0} \to \pi^{+}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, D_{s}^{+} \to K_{L}\pi^{+}\pi^{-}K^{+}, \bar{D}^{*0} \to \bar{D}^{0}\gamma, D^{0} \to K^{-}a_{1}^{+}, \bar{D}^{0} \to \pi^{0}\pi^{+}\pi^{-}K^{*},$ $a_{1}^{+} \to \pi^{+}f_{0}(600), K^{*} \to \pi^{-}K^{+}$ $(e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}f_{0}(600)\gamma\gamma\gamma\gamma)$	1	136
137	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\pi^{-}\rho^{+}\rho^{+}K^{0}D^{-}, \bar{B}^{0} \to \pi^{0}\rho^{0}\pi^{-}\eta\omega D^{+}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+},$ $\rho^{+} \to \pi^{0}\pi^{+}, K^{0} \to K_{S}, D^{-} \to K_{L}\pi^{+}\pi^{-}K^{-}, \pi^{0} \to e^{+}e^{-}, \rho^{0} \to \pi^{+}\pi^{-}, \eta \to \pi^{+}\pi^{-},$ $\omega \to \pi^{0}\pi^{+}\pi^{-}, D^{+} \to K_{L}a_{1}^{+}, K_{S} \to \pi^{+}\pi^{-}, a_{1}^{+} \to \pi^{0}\rho^{+}, \rho^{+} \to \pi^{0}\pi^{+}$ $(e^{+}e^{-} \to e^{+}e^{-}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	137
138	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{0}K^{+}D_{s}^{*-}, \bar{B}^{0} \to D^{*0}n\bar{n}, D_{s}^{*-} \to D_{s}^{-}\gamma, D^{*0} \to \pi^{0}D^{0},$ $D_{s}^{-} \to \rho^{-}\eta', D^{0} \to \pi^{+}K^{-}, \rho^{-} \to \pi^{0}\pi^{-}, \eta' \to \rho^{0}\gamma, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	138
139	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to e^{+}\nu_{e}D^{-}, B^{0} \to K^{+}\Delta^{+}\bar{\Sigma}_{c}^{*}, D^{-} \to K_{L}\pi^{+}\pi^{-}K^{-}, \Delta^{+} \to \pi^{0}p,$ $\bar{\Sigma}_{c}^{*} \to \pi^{-}\bar{\Lambda}_{c}^{-}, \bar{\Lambda}_{c}^{-} \to \pi^{0}\pi^{-}\bar{\Delta}^{0}, \bar{\Delta}^{0} \to \pi^{+}\bar{p}$ $(e^{+}e^{-} \to e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}p\bar{p}\gamma\gamma\gamma\gamma)$	1	139
140	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{+}\rho^{+}\rho^{-}\eta\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\bar{K}^{0}K^{*}K^{+}K^{*-}, \rho^{+} \to \pi^{0}\pi^{+}, \rho^{+} \to \pi^{0}\pi^{+}, \rho^{-} \to \pi^{0}\pi^{-}, \eta \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{0}D^{-}, \bar{K}^{0} \to K_{S}, K^{*} \to \pi^{-}K^{+}, K^{*-} \to \pi^{-}\bar{K}^{0}, \rho^{-} \to e^{-}\bar{\nu}_{e}K^{*}, K_{S} \to \pi^{+}\pi^{-}, \bar{K}^{0} \to K_{S}, K^{*} \to \pi^{-}K^{+}, K_{S} \to \pi^{+}\pi^{-}, \rho^{+} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$	1	140
141	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\rho^{0}\pi^{-}D^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \rho^{0} \to \pi^{+}\pi^{-},$ $D^{+} \to \pi^{0}\pi^{+}\bar{K}^{*}, \bar{D}^{0} \to e^{-}\bar{\nu}_{e}K^{+}, \bar{K}^{*} \to \pi^{0}\bar{K}^{0}, \bar{K}^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	141

	event tree		
index	(event initial-final states)	nEvts	nCmltEvts
	$e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to B^0\bar{B}^0, B^0 \to D^-D_s^{*+}\gamma, \bar{B}^0 \to \pi^+\pi^-\rho^-D^+, D^- \to \pi^0\pi^-K^+K^-, D_s^{*+} \to D_s^+\gamma,$		
142	$\rho^- \to \pi^0 \pi^-, D^+ \to \mu^+ \nu_\mu \bar{K}^*, D_s^+ \to \bar{K}^* K^{*+}, \bar{K}^* \to \pi^+ K^-, \bar{K}^* \to \pi^+ K^-, K^{*+} \to \pi^0 K^+$	1	142
	$(e^+e^- \to \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^+K^-K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{+}n\bar{\Sigma}^{-}_{c}, \bar{B}^{0} \to D^{*+}D'^{-}_{s1}, \rho^{+} \to \pi^{0}\pi^{+}, \bar{\Sigma}^{-}_{c} \to \pi^{0}\bar{\Lambda}^{-}_{c},$		
143	$D^{*+} \to \pi^+ D^0, D'^{s1} \to \pi^0 D^{*-}_s, \bar{\Lambda}^c \to \bar{K}^* \bar{\Sigma}^-, D^0 \to \pi^0 \pi^+ K^-, D^{*-}_s \to D^s \gamma, \bar{K}^* \to \pi^+ K^-,$	1	143
	$\bar{\Sigma}^- \to \pi^- \bar{n}, D_s^- \to K^* K^-, K^* \to \pi^- K^+$	_	
	$\frac{(e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}K^{-}n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{+}, \bar{B}^{0} \to \bar{K}^{*}K^{-}D^{*+}, D^{+} \to K_{S}K^{*+}, \bar{K}^{*} \to \pi^{+}K^{-},}$		
144	$e^+e^- o 1(4S), 1(4S) o D^- B^- B^- A^- B^- D^+ A^- B^- B^- B^- B^- B^- B^- B^- B^- B^- B$	1	144
1.4.4	$(e^{+}e^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	144
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\pi^{+}\pi^{-}\omega\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\pi^{+}\pi^{-}\pi^{-}D^{*+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$		
1.45	$D^{*+} \to \pi^+ D^0, \bar{D}^0 \to e^- \bar{\nu}_e \pi^+ K^0, D^0 \to \rho^+ K^{*-}, K^0 \to K_S, \rho^+ \to \pi^0 \pi^+, K^{*-} \to \pi^- \bar{K}^0,$	1	1.45
145	$K_S ightarrow \pi^+\pi^-, ar K^0 ightarrow K_L$	1	145
	$(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$		
	$e^+e^- o \Upsilon(4S), \Upsilon(4S) \to B^0 \bar{B}^0, B^0 \to \pi^+ K^0 \bar{K}^* \bar{D}^{*-}, \bar{B}^0 \to \pi^+ K^- D^- D^{*+}, K^0 \to K_L, \bar{K}^* \to \pi^+ K^-, \bar{K}^0 \to K_L, \bar{K}^* \to K_L,$		
146	$\bar{D}^{*-} o \pi^- \bar{D}^0, D^- o K_S a_1^-, D^{*+} o \pi^+ D^0, \bar{D}^0 o K_S \eta', K_S o \pi^+ \pi^-, a_1^- o ho^0 \pi^-,$	1	146
	$D^{0} \to \pi^{0} \pi^{0} \pi^{+} \pi^{-}, K_{S} \to \pi^{+} \pi^{-}, \eta' \to \rho^{0} \gamma, \rho^{0} \to \pi^{+} \pi^{-}, \rho^{0} \to \pi^{+} \pi^{-}$ $(e^{+} e^{-} \to K_{L} \pi^{+} \pi^{+} \pi^{+} \pi^{+} \pi^{+} \pi^{+} \pi^{+} \pi^{+} \pi^{-} \pi^{-} \pi^{-} \pi^{-} \pi^{-} \pi^{-} \pi^{-} K^{-} K^{-} \gamma \gamma \gamma \gamma)$		
	$\frac{(e^+e^- \to K_L\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^-K^-\gamma\gamma\gamma\gamma\gamma)}{e^+e^- \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^0\bar{B}^0, \bar{B}^0 \to \rho^- D_2^{*+}, \bar{B}^0 \to \rho^0\pi^+K^{*-}\eta_c, \rho^- \to \pi^0\pi^-, D_2^{*+} \to \pi^+ D^0,}$		
	$\rho^0 \rightarrow \pi^+\pi^-, K^{*-} \rightarrow \pi^-\bar{K}^0, \eta_c \rightarrow \pi^0\pi^+\pi^-\omega, D^0 \rightarrow \pi^+\omega K^-, \bar{K}^0 \rightarrow K_L, \omega \rightarrow \pi^0\pi^+\pi^-, K^0 \rightarrow K_L, \omega \rightarrow \pi^0\pi^+\pi^-, K^0 \rightarrow K_L, \omega \rightarrow \pi^0\pi^+\pi^-, K^0 \rightarrow K_L, \omega \rightarrow$		
147	$\omega o \pi^0 \pi^+ \pi^-$	1	147
	$(e^+e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$		
	$e^+e^- o \Upsilon(4S), \Upsilon(4S) o B^0 \bar{B}^0, B^0 o ho^0 \pi^+ \pi^+ ho^- D^-, \bar{B}^0 o D_s^* - D_1^+, ho^0 o \pi^+ \pi^-, ho^- o \pi^0 \pi^-,$		
148	$D^{-} \to \mu^{-} \bar{\nu}_{\mu} K^{0}, D_{s}^{*-} \to D_{s}^{-} \gamma, D_{1}^{+} \to \pi^{+} D^{*0}, K^{0} \to K_{S}, D_{s}^{-} \to \pi^{+} \pi^{-} K_{S} K^{-}, D^{*0} \to D^{0} \gamma,$	1	148
110	$K_S \to \pi^+\pi^-, K_S \to \pi^+\pi^-, D^0 \to \pi^+\omega K^-, \omega \to \pi^0\pi^+\pi^-$	_	110
	$(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$		
1.40	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \pi^{0}\rho^{0}\pi^{+}D^{-}, \bar{B}^{0} \rightarrow \pi^{+}\pi^{-}\pi^{-}D^{+}, \rho^{0} \rightarrow \pi^{+}\pi^{-}, D^{-} \rightarrow \pi^{-}K_{1}^{'0},$	4	1.40
149	$D^+ o K_S a_1^+, K_1^{'0} o \pi^- K^{*+}, K_S o \pi^+ \pi^-, a_1^+ o \pi^0 \rho^+, K^{*+} o \pi^0 K^+, \rho^+ o \pi^0 \pi^+$	1	149
	$(e^+e^- \to \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$		
150	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \tau^{+}\nu_{\tau}D_{0}^{*-}, \bar{B}^{0} \to \pi^{0}\omega K^{*}K^{-}D^{+}, \tau^{+} \to \mu^{+}\nu_{\mu}\bar{\nu}_{\tau}, D_{0}^{*-} \to \pi^{-}\bar{D}^{0},$ $\omega \to \pi^{0}\pi^{+}\pi^{-}, K^{*} \to \pi^{0}K^{0}, D^{+} \to \pi^{+}\pi^{+}K^{-}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, K^{0} \to K_{L}$	1	150
150	$(e^+e^- \to \mu^+\nu_\mu\nu_\tau\bar{\nu}_\tau K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	150
151	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}\pi^{+}\pi^{-}\bar{D}^{*-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D^{*+} \to \pi^{0}D^{+},$		
	$ar{D}^0 o \pi^- K^+, D^+ o \mu^+ u_\mu \pi^+ K^-$	1	151
	$(e^+e^- \to e^+e^-\nu_e\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma)$		

index	event tree (event initial-final states)	nEvts	nCmltEvts
152	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \rho^{0}\bar{D}^{*-}\bar{\Sigma}^{0}\Sigma^{+}, \bar{B}^{0} \rightarrow \eta\bar{K}^{0}J/\psi, \rho^{0} \rightarrow \pi^{+}\pi^{-}, \bar{D}^{*-} \rightarrow \pi^{0}D^{-},$ $\bar{\Sigma}^{0} \rightarrow \bar{\Lambda}\gamma, \Sigma^{+} \rightarrow \pi^{+}n, \eta \rightarrow \pi^{0}\pi^{0}\pi^{0}, \bar{K}^{0} \rightarrow K_{L}, J/\psi \rightarrow \pi^{-}\eta K_{S}K^{+}, D^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}K^{0},$ $\bar{\Lambda} \rightarrow \pi^{+}\bar{p}, K_{L} \rightarrow e^{-}\nu_{e}\pi^{+}, \eta \rightarrow \pi^{0}\pi^{+}\pi^{-}, K_{S} \rightarrow \pi^{+}\pi^{-}, K^{0} \rightarrow K_{S}, K_{S} \rightarrow \pi^{0}\pi^{0}$ $(e^{+}e^{-} \rightarrow e^{-}\nu_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	152
153	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\rho^{0}\rho^{0}\rho^{+}\bar{D}^{*-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{0} \to \pi^{-}\pi^{-}, \rho^{0} \to \pi^$	1	153
154	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{*+}D^{-}, \bar{B}^{0} \to \pi^{+}K^{-}\chi_{c1}, K^{*+} \to \pi^{0}K^{+}, D^{-} \to \pi^{-}K_{1}^{'0},$ $\chi_{c1} \to \pi^{-}\eta\eta\bar{K}^{0}K^{+}, K_{1}^{'0} \to \pi^{-}K^{*+}, \eta \to \gamma\gamma, \eta \to \pi^{0}\pi^{0}\pi^{0}, \bar{K}^{0} \to K_{S}, K^{*+} \to \pi^{0}K^{+},$ $K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	154
155	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{*+}D^{-}D^{0}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D_{2}^{*+}, K^{*+} \to \pi^{0}K^{+}, D^{-} \to \pi^{0}\pi^{-}K_{S},$ $D^{0} \to \pi^{0}\pi^{0}\pi^{+}\pi^{-}, D_{2}^{*+} \to \pi^{+}D^{0}, K_{S} \to \pi^{+}\pi^{-}, D^{0} \to \pi^{0}\pi^{+}K^{*-}, K^{*-} \to \pi^{0}K^{-}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	155
156	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{+}D^{-}, \bar{B}^{0} \to \pi^{-}\pi^{-}\rho^{+}D^{*+}, \rho^{+} \to \pi^{0}\pi^{+}, D^{-} \to \rho^{-}K^{*},$ $\rho^{+} \to \pi^{0}\pi^{+}, D^{*+} \to \pi^{+}D^{0}, \rho^{-} \to \pi^{0}\pi^{-}, K^{*} \to \pi^{-}K^{+}, D^{0} \to \pi^{0}\pi^{0}\bar{K}^{*}, \bar{K}^{*} \to \pi^{+}K^{-}$ $(e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	156
157	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\rho^{0}\rho^{-}D^{*+}\gamma, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \rho^{0} \to \pi^{+}\pi^{-},$ $\rho^{-} \to \pi^{0}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, D^{0} \to e^{+}\nu_{e}\rho^{-}, \rho^{-} \to \pi^{0}\pi^{-}$ $(e^{+}e^{-} \to e^{+}e^{+}\nu_{e}\nu_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	157
158	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \pi^{+}\bar{D}^{*-}, B^{0} \to \pi^{0}\rho^{0}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\eta\omega D^{-}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{0}\pi^{+}\pi^{-}, \rho^{0} \to \pi^{0}\pi^{+}\pi^{-}, \rho^{0} \to \pi^{0}\pi^{-}K^{+}, \rho^{0} \to \pi^{0}$	1	158
159	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{-}K^{0}D^{+}\bar{D}^{*0}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{+}, K^{0} \to K_{S}, D^{+} \to K_{S}a_{1}^{+},$ $\bar{D}^{*0} \to \bar{D}^{0}\gamma, D^{+} \to \mu^{+}\nu_{\mu}\bar{K}^{*}, K_{S} \to \pi^{+}\pi^{-}, K_{S} \to \pi^{+}\pi^{-}, a_{1}^{+} \to \pi^{+}f_{0}(600), \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+},$ $\bar{K}^{*} \to \pi^{0}\bar{K}^{0}, \bar{K}^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}f_{0}(600)\gamma\gamma\gamma\gamma\gamma)$	1	159
160	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}D_{1}^{-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, D_{1}^{-} \to \pi^{-}\bar{D}^{*0}, D^{*+} \to \pi^{0}D^{+},$ $\bar{D}^{*0} \to \pi^{0}\bar{D}^{0}, D^{+} \to e^{+}\nu_{e}\pi^{0}, \bar{D}^{0} \to \pi^{0}K_{S}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{+}e^{-}\nu_{e}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	160
161	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{K}^{0}K^{+}D^{-}, \bar{B}^{0} \to \rho^{0}\pi^{-}D^{*+}, \bar{K}^{0} \to K_{L}, D^{-} \to K^{*}a_{1}^{-},$ $\rho^{0} \to \pi^{+}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, K^{*} \to \pi^{-}K^{+}, a_{1}^{-} \to \pi^{-}f_{0}(600), D^{0} \to \pi^{+}\omega K^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}$ $(e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}f_{0}(600)\gamma\gamma)$	1	161
162	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to D^{*+}D_{s}^{-}, \bar{B}^{0} \to \pi^{0}\pi^{0}\pi^{-}\omega D^{+}, D^{*+} \to \pi^{+}D^{0}, D_{s}^{-} \to \mu^{-}\bar{\nu}_{\mu}\eta,$ $\omega \to \pi^{+}\pi^{-}, D^{+} \to \mu^{+}\nu_{\mu}\bar{K}^{*}, D^{0} \to \pi^{0}\pi^{+}K^{-}, \eta \to \pi^{0}\pi^{0}\pi^{0}, \bar{K}^{*} \to \pi^{+}K^{-}$ $(e^{+}e^{-} \to \mu^{+}\mu^{-}\nu_{\mu}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	162

index	event tree (event initial-final states)	nEvts	nCmltEvts
	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\omega\bar{D}^{*-}, \bar{B}^{0} \to D^{*+}D^{-}_{s}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$		
163	$D^{*+} \to \pi^0 D^+, D_s^- \to \mu^- \bar{\nu}_\mu \eta', \bar{D}^0 \to \pi^0 \pi^+ \pi^- K_S, D^+ \to \pi^+ \pi^+ K^-, \eta' \to \rho^0 \gamma, K_S \to \pi^+ \pi^-, \rho^0 \to \pi^+ \pi^-$	1	163
	$\frac{(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\Sigma^{0}\bar{\Xi}^{0}_{c}, \bar{B}^{0} \to D^{+}D^{\prime-}_{s1}, \Sigma^{0} \to \Lambda\gamma, \bar{\Xi}^{0}_{c} \to \pi^{-}K^{+}\bar{\Sigma}^{0},}$		
164	$D^{+} \rightarrow \mu^{+} \nu_{\mu} \bar{K}^{*}, D_{s1}^{'-} \rightarrow \pi^{0} D_{s}^{*-}, \Lambda \rightarrow \pi^{-} p, \bar{\Sigma}^{0} \rightarrow \bar{\Lambda} \gamma, \bar{K}^{*} \rightarrow \pi^{+} K^{-}, D_{s}^{*-} \rightarrow D_{s}^{-} \gamma, \\ \bar{\Lambda} \rightarrow \pi^{+} \bar{p}, D_{s}^{-} \rightarrow \rho^{-} \eta', \rho^{-} \rightarrow \pi^{0} \pi^{-}, \eta' \rightarrow \pi^{+} \pi^{-} \eta, \eta \rightarrow \gamma \gamma \\ (e^{+} e^{-} \rightarrow \mu^{+} \nu_{\mu} \pi^{+} \pi^{+} \pi^{-} \pi^{-} \pi^{-} K^{+} K^{-} p \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma) $	1	164
165	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\eta\omega\bar{D}^{*0}, \bar{B}^{0} \to \pi^{0}\rho^{-}\omega D^{*+}, \rho^{0} \to \pi^{+}\pi^{-}, \eta \to \pi^{0}\pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*0} \to \pi^{0}\bar{D}^{0}, \rho^{-} \to \pi^{0}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*+} \to \pi^{+}D^{0}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*0} \to \pi^{0}\pi^{-}K^{+}, \bar{D}^{0} \to \pi^{0}\pi^$	1	165
166	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{*-}\bar{\Delta}^{-}\Delta^{0}, \bar{B}^{0} \to \rho^{-}D^{+}, \bar{D}^{*-} \to \pi^{0}D^{-}, \bar{\Delta}^{-} \to \pi^{+}\bar{n},$ $\Delta^{0} \to \pi^{0}n, \rho^{-} \to \pi^{0}\pi^{-}, D^{+} \to \mu^{+}\nu_{\mu}\pi^{+}K^{-}, D^{-} \to \mu^{-}\bar{\nu}_{\mu}K^{0}, K^{0} \to K_{L}$	1	166
167	$(e^{+}e^{-} \to \mu^{+}\mu^{-}\nu_{\mu}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{-}K^{-}n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{-}p\bar{\Sigma}_{c}^{0}, \bar{B}^{0} \to \tau^{-}\bar{\nu}_{\tau}D^{*+}, \rho^{-} \to \pi^{0}\pi^{-}, \bar{\Sigma}_{c}^{0} \to \pi^{+}\bar{\Lambda}_{c}^{-},$ $\tau^{-} \to \nu_{\tau}\pi^{0}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, \bar{\Lambda}_{c}^{-} \to \pi^{-}\eta\bar{\Lambda}, D^{0} \to K_{S}\phi, \eta \to e^{+}e^{-}, \bar{\Lambda} \to \pi^{0}\bar{n},$ $K_{S} \to \pi^{+}\pi^{-}, \phi \to K^{+}K^{-}$ $(e^{+}e^{-} \to e^{+}e^{-}\nu_{\tau}\bar{\nu}_{\tau}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma)$	1	167
168	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to \pi^{+}K^{*-}J/\psi, \bar{B}^{0} \to \bar{K}^{0}D^{*0}\bar{D}^{*0}, K^{*-} \to \pi^{-}\bar{K}^{0}, J/\psi \to K^{*}\bar{K}^{*}\gamma, \\ \bar{K}^{0} \to K_{L}, D^{*0} \to D^{0}\gamma, \bar{D}^{*0} \to \bar{D}^{0}\gamma, \bar{K}^{0} \to K_{L}, K^{*} \to \pi^{-}K^{+}, \bar{K}^{*} \to \pi^{+}K^{-}, \\ D^{0} \to \pi^{0}\pi^{+}K^{-}, \bar{D}^{0} \to \pi^{0}\pi^{+}\pi^{-}K^{*}, K^{*} \to \pi^{-}K^{+} \\ (e^{+}e^{-} \to K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	168
169	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{-}K^{*+}D^{0}\bar{D}^{*0}, \bar{B}^{0} \to \pi^{0}\pi^{+}\pi^{-}\pi^{-}D^{*+}, K^{*+} \to \pi^{+}K^{0}, D^{0} \to K^{-}a_{1}^{+},$ $\bar{D}^{*0} \to \pi^{0}\bar{D}^{0}, D^{*+} \to \pi^{+}D^{0}, K^{0} \to K_{S}, a_{1}^{+} \to \pi^{+}\pi^{+}\pi^{-}, \bar{D}^{0} \to \rho^{-}K^{*+}, D^{0} \to \pi^{+}K^{-},$ $K_{S} \to \pi^{+}\pi^{-}, \rho^{-} \to \pi^{0}\pi^{-}, K^{*+} \to \pi^{0}K^{+}$ $(e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	169
170	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \mu^{+}\nu_{\mu}D^{-}, B^{0} \to \pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\eta K^{+}K^{+}D_{s}^{*-}, D^{-} \to \mu^{-}\bar{\nu}_{\mu}K^{0}, \eta \to \pi^{0}\pi^{+}\pi^{-}, D_{s}^{*-} \to D_{s}^{*-}\gamma, K^{0} \to K_{L}, D_{s}^{-} \to \pi^{0}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-} (e^{+}e^{-} \to \mu^{+}\mu^{-}\nu_{\mu}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \pi^{0}\bar{K}^{0}D^{-}\Delta^{0}\bar{\Sigma}^{+}, B^{0} \to \pi^{0}\pi^{+}\pi^{+}\pi^{-}\rho^{-}\bar{D}^{0}, \bar{K}^{0} \to K_{L}, D^{-} \to \pi^{0}\pi^{-}K_{S},$	1	170
171	$\Delta^0 \to \pi^0 n, \bar{\Sigma}^+ \to \pi^+ \bar{n}, \rho^- \to \pi^0 \pi^-, \bar{D}^0 \to \pi^- \rho^+, K_S \to \pi^0 \pi^0, \rho^+ \to \pi^0 \pi^+ \\ (e^+ e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- n \bar{n} \gamma \gamma)$	1	171
172	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{+}\rho^{-}\rho^{-}\omega D^{*+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \rho^{-} \to \pi^{0}\pi^{-}, \\ \rho^{-} \to \pi^{0}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, D^{*+} \to \pi^{0}D^{+}, \bar{D}^{0} \to \pi^{0}\pi^{+}\pi^{-}K_{S}, D^{+} \to K_{S}K^{*+}, K_{S} \to \pi^{+}\pi^{-}, \\ K_{S} \to \pi^{0}\pi^{0}, K^{*+} \to \pi^{0}K^{+} \\ (e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	172

index	event tree (event initial-final states)	nEvts	nCmltEvts
173	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{*-}D'_{s1}^{+}, \bar{B}^{0} \to \pi^{0}\pi^{+}\pi^{+}K^{-}D^{-}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D'_{s1}^{+} \to \pi^{0}D_{s}^{*+}, \\ D^{-} \to K_{S}K^{*-}, \bar{D}^{0} \to \omega K_{S}, D_{s}^{*+} \to D_{s}^{+}\gamma, K_{S} \to \pi^{0}\pi^{0}, K^{*-} \to \pi^{-}\bar{K}^{0}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \\ K_{S} \to \pi^{+}\pi^{-}, D_{s}^{+} \to \rho^{+}\phi, \bar{K}^{0} \to K_{S}, \rho^{+} \to \pi^{0}\pi^{+}, \phi \to K^{+}K^{-}, K_{S} \to \pi^{0}\pi^{0} \\ (e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	173
174	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to K^{*}D^{-}D^{*+}, \bar{B}^{0} \to \rho^{0}\rho^{-}\eta D^{*+}, K^{*} \to \pi^{-}K^{+}, D^{-} \to \mu^{-}\bar{\nu}_{\mu}K^{0},$ $D^{*+} \to \pi^{+}D^{0}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{-} \to \pi^{0}\pi^{-}, \eta \to \pi^{0}\pi^{+}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, K^{0} \to K_{S},$ $D^{0} \to K^{-}a_{1}^{+}, D^{0} \to \pi^{0}\rho^{+}K^{-}, K_{S} \to \pi^{+}\pi^{-}, a_{1}^{+} \to \pi^{0}\rho^{+}, \rho^{+} \to \pi^{0}\pi^{+}, \rho^{+} \to \pi^{0}\pi^{+}$ $(e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	174
175	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to \rho^{-}\omega D^{+}\gamma, \bar{B}^{0} \to \pi^{0}\pi^{0}\pi^{+}K^{0}K^{0}K^{-}K^{-}D^{*+}, \rho^{-} \to \pi^{0}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, D^{+} \to \pi^{0}\pi^{+}\bar{K}^{*}, K^{0} \to K_{L}, K^{0} \to K_{L}, D^{*+} \to \pi^{+}D^{0}, \bar{K}^{*} \to \pi^{+}K^{-}, D^{0} \to \pi^{+}\pi^{+}\pi^{-}\pi^{-}$ $(e^{+}e^{-} \to K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}K^{-}K^{-}Y\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	175
176	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \tau^{+}\nu_{\tau}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\bar{n}\Sigma_{c}^{0}, \tau^{+} \to \bar{\nu}_{\tau}\pi^{0}\pi^{0}\pi^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$ $\Sigma_{c}^{0} \to \pi^{-}\Lambda_{c}^{+}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, \Lambda_{c}^{+} \to \pi^{0}\pi^{+}K^{-}p$ $(e^{+}e^{-} \to \nu_{\tau}\bar{\nu}_{\tau}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	176
177	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{-}D^{-}\bar{\Delta}^{0}\Delta^{++}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}, \rho^{-} \to \pi^{0}\pi^{-}, D^{-} \to K_{L}K_{L}K^{-},$ $\bar{\Delta}^{0} \to \pi^{0}\bar{n}, \Delta^{++} \to \pi^{+}p, D^{*+} \to \pi^{0}D^{+}, D^{+} \to K_{L}\pi^{+}$ $(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}K_{L}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{-}K^{-}\bar{n}p\gamma\gamma\gamma\gamma\gamma)$	1	177
178	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}D^{-}\bar{n}p, \bar{B}^{0} \to \pi^{0}\pi^{0}\pi^{0}\pi^{+}K^{*-}\bar{D}^{*0}, D^{-} \to K_{L}a_{1}^{-}, K^{*-} \to \pi^{0}K^{-},$ $\bar{D}^{*0} \to \bar{D}^{0}\gamma, a_{1}^{-} \to \pi^{0}\rho^{-}, \bar{D}^{0} \to K_{L}K^{+}K^{-}, \rho^{-} \to \pi^{0}\pi^{-}, K_{L} \to \pi^{0}\pi^{0}\pi^{0}$ $(e^{+}e^{-} \to K_{L}\pi^{+}\pi^{-}K^{+}K^{-}K^{-}\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, \bar{B}^{0} \to D^{+}\Delta^{-}\bar{n}, D^{*+} \to \pi^{0}D^{+}, D^{+} \to \pi^{+}\pi^{+}K^{-},$	1	178
179	$\Delta^- ightarrow \pi^- n, D^+ ightarrow e^+ u_e ar{K}^*, ar{K}^* ightarrow \pi^+ K^- \ (e^+ e^- ightarrow e^+ u_e \mu^- ar{ u}_\mu \pi^+ \pi^+ \pi^- K^- K^- n ar{n} \gamma \gamma)$	1	179
180	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}\bar{D}^{*-}, \bar{B}^{0} \to \pi^{0}\pi^{+}D^{0}D_{s}^{*-}, \bar{D}^{*-} \to \pi^{0}D^{-}, D^{0} \to e^{+}\nu_{e}K^{*-},$ $D_{s}^{*-} \to D_{s}^{-}\gamma, D^{-} \to \pi^{0}\pi^{-}K_{S}, K^{*-} \to \pi^{-}\bar{K}^{0}, D_{s}^{-} \to \pi^{-}\eta, K_{S} \to \pi^{+}\pi^{-}, \bar{K}^{0} \to K_{S},$ $\eta \to \gamma\gamma, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}X_{u}^{-}, \bar{B}^{0} \to \bar{K}^{*}\bar{\Lambda}\Xi_{c}^{*}^{*}, X_{u}^{-} \to \pi^{0}\rho^{-}, \bar{K}^{*} \to \pi^{+}K^{-},$	1	180
181	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}X_{u}^{-}, \bar{B}^{0} \to \bar{K}^{*}\bar{\Lambda}\Xi_{c}^{*0}, X_{u}^{-} \to \pi^{0}\rho^{-}, \bar{K}^{*} \to \pi^{+}K^{-}, \\ \bar{\Lambda} \to \pi^{+}\bar{p}, \Xi_{c}^{*0} \to \Xi_{c}^{0}\gamma, \rho^{-} \to \pi^{0}\pi^{-}, \Xi_{c}^{0} \to \pi^{+}K^{*-}\Sigma^{0}, K^{*-} \to \pi^{-}\bar{K}^{0}, \Sigma^{0} \to \Lambda\gamma, \\ \bar{K}^{0} \to K_{S}, \Lambda \to \pi^{-}p, K_{S} \to \pi^{+}\pi^{-} \\ (e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}p\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	181
182	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\rho^{0}\pi^{+}\omega\bar{D}^{*-}, \bar{B}^{0} \to \pi^{+}\pi^{-}\rho^{-}D^{+}, \rho^{0} \to \pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{-}, \omega \to \pi^{0}\pi^{-}$	1	182
183	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to \bar{B}^{0}\bar{B}^{0}, \bar{B}^{0} \to D^{*+}D'_{s1}, \bar{B}^{0} \to \pi^{-}\eta D^{*+}, D^{*+} \to \pi^{0}D^{+}, D'_{s1} \to \pi^{0}D^{*-}, \\ \eta \to \pi^{0}\pi^{0}\pi^{0}, D^{*+} \to \pi^{+}D^{0}, D^{+} \to e^{+}\nu_{e}\bar{K}^{*}, D^{*-}_{s} \to D^{-}_{s}\gamma, D^{0} \to K_{L}\pi^{+}\pi^{-}, \bar{K}^{*} \to \pi^{+}K^{-}, \\ D^{-}_{s} \to K^{*}K^{-}, K^{*} \to \pi^{0}K^{0}, K^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-} \\ (e^{+}e^{-} \to e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	183

index	event tree (event initial-final states)	nEvts	nCmltEvts
184	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \mu^{+}\nu_{\mu}D_{1}^{\prime-}, \bar{B}^{0} \rightarrow \pi^{0}\pi^{+}\pi^{-}\rho^{-}D^{*+}, D_{1}^{\prime-} \rightarrow \pi^{0}\bar{D}^{*-}, \rho^{-} \rightarrow \pi^{0}\pi^{-},$ $D^{*+} \rightarrow \pi^{+}D^{0}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, D^{0} \rightarrow K_{S}\eta^{\prime}, \bar{D}^{0} \rightarrow \pi^{-}K^{+}, K_{S} \rightarrow \pi^{0}\pi^{0}, \eta^{\prime} \rightarrow \pi^{0}\pi^{0}\eta,$ $\eta \rightarrow \gamma\gamma$ $(e^{+}e^{-} \rightarrow \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}B^{0}, B^{0} \rightarrow \mu^{+}\nu_{\mu}\bar{D}^{*-}, B^{0} \rightarrow \pi^{0}\omega D^{-}\bar{\Delta}^{-}\Delta^{0}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, \omega \rightarrow \pi^{0}\pi^{+}\pi^{-},$	1	184
185	$D^{-} \to e^{-} \bar{\nu}_{e} K^{0}, \Delta^{-} \to \pi^{+} \bar{n}, \Delta^{0} \to \pi^{0} n, D^{0} \to \pi^{0} K_{S}, K^{0} \to K_{S}, K_{S} \to \pi^{0} \pi^{0}, K_{S} \to \pi^{0} \pi^{0}$	1	185
186	$\frac{(e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{-}\pi^{-}n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)}{e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}\bar{D}^{*-}, \bar{B}^{0} \to \omega\bar{K}^{0}K^{*}\bar{K}^{*}, \bar{D}^{*-} \to \pi^{0}D^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{K}^{0} \to K_{L}, K^{*} \to \pi^{-}K^{+}, \bar{K}^{*} \to \pi^{0}\bar{K}^{0}, D^{-} \to \pi^{0}\pi^{-}K^{*}, \bar{K}^{0} \to K_{L}, K^{*} \to \pi^{-}K^{+} \\ (e^{+}e^{-} \to e^{+}\nu_{e}K_{L}K_{L}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	186
187	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \mu^{+}\nu_{\mu}D_{2}^{*-}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, D_{2}^{*-} \to \pi^{-}\bar{D}^{*0}, D^{*+} \to \pi^{0}D^{+},$ $\bar{D}^{*0} \to \bar{D}^{0}\gamma, D^{+} \to \mu^{+}\nu_{\mu}\bar{K}^{0}, \bar{D}^{0} \to \rho^{-}K^{*+}, \bar{K}^{0} \to K_{L}, \rho^{-} \to \pi^{0}\pi^{-}, K^{*+} \to \pi^{+}K^{0},$ $K^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to \mu^{+}\mu^{+}\mu^{-}\nu_{\mu}\nu_{\mu}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma)$ $e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\pi^{-}\rho^{+}\rho^{-}\bar{D}^{0}, \bar{B}^{0} \to \mu^{-}\bar{\nu}_{\mu}D^{*+}, \rho^{+} \to \pi^{0}\pi^{+}, \rho^{-} \to \pi^{0}\pi^{-},$	1	187
188	$D^{0} \to K^{+}a_{1}^{-}, D^{*+} \to \pi^{+}D^{0}, a_{1}^{-} \to \rho^{0}\pi^{-}, D^{0} \to e^{+}\nu_{e}\pi^{0}K^{-}, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	188
189	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \bar{D}^{*-}D'^{+}_{s1}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}D^{*+}_{2}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D'^{+}_{s1} \to \pi^{0}D^{*+}_{s}, \\ D^{*+}_{2} \to \pi^{+}D^{*0}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, D^{*+}_{s} \to D^{+}_{s}\gamma, D^{*0} \to \pi^{0}D^{0}, D^{+}_{s} \to \bar{K}^{*}K^{*+}, D^{0} \to K_{L}\eta', \\ \bar{K}^{*} \to \pi^{+}K^{-}, K^{*+} \to \pi^{+}K^{0}, \eta' \to \pi^{+}\pi^{-}\eta, K^{0} \to K_{L}, \eta \to \gamma\gamma \\ (e^{+}e^{-} \to e^{-}\bar{\nu}_{e}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	189
190	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow \rho^{+}\eta\eta\bar{D}^{*-}, \bar{B}^{0} \rightarrow \pi^{0}\pi^{+}\eta K^{*-}, \rho^{+} \rightarrow \pi^{0}\pi^{+}, \eta \rightarrow \pi^{0}\pi^{0}\pi^{0}, \eta \rightarrow \pi^{0}\pi^{0}\pi^{0}, \bar{D}^{*-} \rightarrow \pi^{-}\bar{D}^{0}, \eta \rightarrow \pi^{0}\pi^{0}\pi^{0}, K^{*-} \rightarrow \pi^{0}K^{-}, \bar{D}^{0} \rightarrow \pi^{+}\pi^{-}K^{*}, K^{*} \rightarrow \pi^{0}K^{0}, K^{0} \rightarrow K_{L}$ $(e^{+}e^{-} \rightarrow K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{-}\gamma$	1	190
191	$ \begin{array}{c} e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\Delta^{+}\bar{\Sigma}_{c}^{*}, \bar{B}^{0} \to \rho^{0}\pi^{-}\pi^{-}\rho^{+}\bar{K}^{*}D^{*+}, \Delta^{+} \to \pi^{0}p, \bar{\Sigma}_{c}^{*} \to \pi^{-}\bar{\Lambda}_{c}^{-}, \\ \rho^{0} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+}, \bar{K}^{*} \to \pi^{0}\bar{K}^{0}, D^{*+} \to \pi^{+}D^{0}, \bar{\Lambda}_{c}^{-} \to K^{+}\bar{\Delta}^{++}, \bar{K}^{0} \to K_{L}, \\ D^{0} \to e^{+}\nu_{e}\pi^{-}\bar{K}^{0}, \bar{\Delta}^{++} \to \pi^{-}\bar{p}, \bar{K}^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-} \\ (e^{+}e^{-} \to e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}p\bar{p}\gamma\gamma\gamma\gamma\gamma) \end{array} $	1	191
192	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}D^{-}, \bar{B}^{0} \to \rho^{0}\rho^{-}D^{*+}, D^{-} \to e^{-}\bar{\nu}_{e}K^{0}, \rho^{0} \to \pi^{+}\pi^{-},$ $\rho^{-} \to \pi^{0}\pi^{-}, D^{*+} \to \pi^{+}D^{0}, K^{0} \to K_{L}, D^{0} \to \pi^{+}\eta K^{-}, \eta \to \pi^{0}\pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{+}e^{-}\nu_{e}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	192
193	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{+}\bar{D}^{*-}, \bar{B}^{0} \to \rho^{0}\pi^{-}K^{0}\bar{K}^{*}D^{+}, \rho^{+} \to \pi^{0}\pi^{+}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0},$ $\rho^{0} \to \pi^{+}\pi^{-}, K^{0} \to K_{S}, \bar{K}^{*} \to \pi^{+}K^{-}, D^{+} \to K_{L}a_{1}^{+}, \bar{D}^{0} \to \pi^{0}K_{L}\eta, K_{S} \to \pi^{+}\pi^{-},$ $a_{1}^{+} \to \rho^{0}\pi^{+}, \eta \to \pi^{0}\pi^{+}\pi^{-}, \rho^{0} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	193

index	event tree (event initial-final states)	nEvts	nCmltEvts
194	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to e^{+}\nu_{e}D^{-}, \bar{B}^{0} \to K^{*-}D^{*+}\bar{D}^{0}, D^{-} \to K^{*}K^{-}, K^{*-} \to \pi^{-}\bar{K}^{0},$ $D^{*+} \to \pi^{+}D^{0}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, K^{*} \to \pi^{-}K^{+}, \bar{K}^{0} \to K_{L}, D^{0} \to \pi^{+}\pi^{-}, K_{L} \to \pi^{0}\pi^{0}\pi^{0}$ $(e^{+}e^{-} \to e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	194
195	$e^{+}e^{-} \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^{0}\bar{B}^{0}, B^{0} \rightarrow J/\psi K_{1}^{0}, \bar{B}^{0} \rightarrow \pi^{0}D^{+}D_{s}^{*-}, J/\psi \rightarrow \pi^{0}\eta\eta, K_{1}^{0} \rightarrow \pi^{+}\pi^{-}K^{0},$ $D^{+} \rightarrow e^{+}\nu_{e}\bar{K}^{0}, D_{s}^{*-} \rightarrow D_{s}^{-}\gamma, \eta \rightarrow \gamma\gamma, \eta \rightarrow \gamma\gamma, K^{0} \rightarrow K_{S}, \bar{K}^{0} \rightarrow K_{S},$ $D_{s}^{-} \rightarrow \rho^{-}\eta, K_{S} \rightarrow \pi^{0}\pi^{0}, K_{S} \rightarrow \pi^{+}\pi^{-}, \rho^{-} \rightarrow \pi^{0}\pi^{-}, \eta \rightarrow \pi^{0}\pi^{0}\pi^{0}$ $(e^{+}e^{-} \rightarrow e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	195
196	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to K^{*}D^{+}D^{-}, B^{0} \to \bar{D}^{*-}\bar{\Delta}^{-}\Delta^{0}, K^{*} \to \pi^{0}K^{0}, D^{+} \to \pi^{+}\bar{K}_{1}^{'0},$ $D^{-} \to e^{-}\bar{\nu}_{e}K_{2}^{*0}, \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, \bar{\Delta}^{-} \to \pi^{+}\bar{n}, \Delta^{0} \to \pi^{0}n, K^{0} \to K_{L}, \bar{K}_{1}^{'0} \to \pi^{+}K^{*-},$ $K_{2}^{*0} \to \pi^{0}K^{0}, \bar{D}^{0} \to e^{-}\bar{\nu}_{e}\pi^{+}K^{0}, K^{*-} \to \pi^{0}K^{-}, K^{0} \to K_{S}, K^{0} \to K_{L}, K_{S} \to \pi^{+}\pi^{-}$ $(e^{+}e^{-} \to e^{-}e^{-}\bar{\nu}_{e}\bar{\nu}_{e}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{-}n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	196
197	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{0}\pi^{-}\eta\bar{D}^{*0}D_{s}^{*+}, \bar{B}^{0} \to D^{*0}\Delta^{0}\bar{\Delta}^{0}, \eta \to \gamma\gamma, \bar{D}^{*0} \to \bar{D}^{0}\gamma, \\ D_{s}^{*+} \to D_{s}^{+}\gamma, D^{*0} \to \pi^{0}D^{0}, \Delta^{0} \to \pi^{0}n, \bar{\Delta}^{0} \to \pi^{0}\bar{n}, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, D_{s}^{+} \to \mu^{+}\nu_{\mu}, \\ D^{0} \to e^{+}\nu_{e}\pi^{-}\bar{K}^{0}, \pi^{0} \to e^{+}e^{-}, \bar{K}^{0} \to K_{S}, K_{S} \to \pi^{0}\pi^{0} \\ (e^{+}e^{-} \to e^{+}e^{+}e^{-}\nu_{e}\mu^{+}\nu_{\mu}\pi^{-}\pi^{-}\pi^{-}K^{+}n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	1	197
198	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \rho^{0}\pi^{+}\omega\bar{D}^{*-}, \bar{B}^{0} \to D^{0}n\bar{n}, \rho^{0} \to \pi^{+}\pi^{-}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \\ \bar{D}^{*-} \to \pi^{-}\bar{D}^{0}, D^{0} \to K_{L}\eta, \bar{D}^{0} \to \pi^{0}\pi^{-}K^{+}, \eta \to \gamma\gamma \\ (e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma)$	1	198
199	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}B^{0}, B^{0} \to \mu^{+}\nu_{\mu}\bar{D}^{*-}, B^{0} \to \rho^{0}\pi^{+}\pi^{-}\rho^{+}\omega\bar{D}^{*-}, \bar{D}^{*-} \to \pi^{0}D^{-}, \rho^{0} \to \pi^{+}\pi^{-}, \rho^{+} \to \pi^{0}\pi^{+}, \omega \to \pi^{0}\pi^{+}\pi^{-}, \bar{D}^{*-} \to \pi^{0}D^{-}, D^{-} \to e^{-}\bar{\nu}_{e}\pi^{-}K^{+}, D^{-} \to \pi^{0}\pi^{-}K^{*}, K^{*} \to \pi^{-}K^{+}, \rho^{+} \to \pi^{0}\pi^{-}K^{+}, \rho^{+} \to \pi^{0}\pi^{-}K^{+}$	1	199
200	$e^{+}e^{-} \to \Upsilon(4S), \Upsilon(4S) \to B^{0}\bar{B}^{0}, B^{0} \to \pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}D^{-}, \bar{B}^{0} \to e^{-}\bar{\nu}_{e}\pi^{+}D^{0}, D^{-} \to \mu^{-}\bar{\nu}_{\mu}K_{1}^{0}, D^{0} \to \pi^{+}\pi^{-}K_{S}, K_{S} \to \pi^{+}\pi^{-}, K^{0} \to K_{S}, K_{S} \to \pi^{+}\pi^{-} \to e^{-}\bar{\nu}_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	200

Table 2: Event initial-final states.

index	Table 2: Event initial-final states. event initial-final states	nEvts	nCmltEvts
1	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma$	1	1
2	$e^+e^- \rightarrow e^+e^-\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma$	1	2
3	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma$	1	3
4	$e^{+}e^{-} \rightarrow e^{+}e^{+}e^{-}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma$	1	4
5	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma$	1	5
6	$e^{+}e^{-} \rightarrow e^{+}e^{+}\nu_{e}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma$	1	6
7	$e^{+}e^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma$	1	7
8	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}\nu_{\tau}\bar{\nu}_{\tau}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma$	1	8
9	$e^{+}e^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma$	1	9
10	$e^{+}e^{-} \rightarrow \mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	10
11	$e^+e^- \rightarrow \mu^+\mu^+\nu_\mu\nu_\mu K_L K_L \pi^+\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma$	1	11
12	$e^+e^- o e^+e^- \mu^- ar{ u}_\mu u_ au ar{ u}_ au \pi^+ \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	1	12
13	$e^+e^- \to \mu^+\nu_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma$	1	13
14	$e^+e^- o \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^- \gamma \gamma$	1	14
15	$e^{+}e^{-} \rightarrow \pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma$	1	15
16	$e^+e^- \rightarrow e^-\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma$	1	16
17	$e^+e^- \rightarrow e^+ u_e\mu^-ar{ u}_eK_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	17
18	$e^+e^- \to \mu^+\nu_\mu K_L K_L \pi^+\pi^+\pi^-\pi^- \pi^- K^+ K^+ K^- K^- \gamma \gamma$	1	18
19	$e^+e^- o e^-ar{ u}_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-K^-\gamma$	1	19
20	$e^{+}e^{-} \rightarrow \mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma$	1	20
21	$e^+e^- \to \mu^-\bar{\nu}_\mu K_L K_L \pi^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma$	1	21
22	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}f_{0}(600)\gamma$	1	22
23	$e^+e^- \to \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma$	1	23
24	$e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	24
25	$e^{+}e^{-} \rightarrow e^{+}e^{+}e^{-}\nu_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	25
26	$e^{+}e^{-} \to e^{+}\nu_{e}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	26
27	$e^{+}e^{-} \to e^{+}\nu_{e}\mu^{+}\nu_{\mu}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma\gamma$	1	27
28	$e^{+}e^{-} \to \mu^{+}\mu^{-}\nu_{\mu}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma$	1	28
29	$e^+e^- \to e^+\nu_e\nu_\tau\bar{\nu}_\tau K_L\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma$	1	29
30	$e^+e^- \to K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma$	1	30
31	$e^+e^- \to \mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma$	1	31
32	$e^{+}e^{-} \to e^{+}e^{+}e^{-}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$	1	32
33	$e^{+}e^{-} \rightarrow \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma$	1	33
34	$e^+e^- \to \mu^- \bar{\nu}_\mu \nu_\tau \bar{\nu}_\tau K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ \gamma \gamma$	1	34
35	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^- K^+ K^- K^- \bar{n} p \gamma \gamma \gamma \gamma \gamma \gamma$	1	35
36	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}n\bar{p}\gamma\gamma$	1	36
37	$e^{+}e^{-} \rightarrow \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\gamma$	1	37
38	$e^+e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- p \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	1	38
39	$e^+e^- o e^+ u_e\mu^+ u_\mu K_L\pi^+\pi^-\pi^-K^-\gamma$	1	39
40	$e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	40

index	event initial-final states	nEvts	nCmltEvts
41	$e^{+}e^{-} \to \mu^{-}\mu^{-}\bar{\nu}_{\mu}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}K^{+}K^{-}K^{-}\gamma$	1	41
42	$e^+e^- \to \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma$	1	42
43	$e^+e^- \to \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-K^-n\bar{p}\gamma$	1	43
44	$e^+e^- \to e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^- \gamma \gamma$	1	44
45	$e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$	1	45
46	$e^+e^- \rightarrow e^+e^-\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+\gamma$	1	46
47	$e^{+}e^{-} \to K_L K_L \pi^{+} \pi^{+} \pi^{+} \pi^{+} \pi^{+} \pi^{-} \pi^{-} \pi^{-} \pi^{-} \pi^{-} \pi^{-} K^{+} \gamma \gamma$	1	47
48	$e^{+}e^{-} \to \mu^{-}\mu^{-}\bar{\nu}_{\mu}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma$	1	48
49	$e^+e^- \to e^+\nu_e\mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu K_L\pi^+\pi^+\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	49
50	$e^+e^- \to e^+e^-\mu^-\bar{\nu}_\mu K_L \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-\gamma$	1	50
51	$e^+e^- \to e^+\nu_e\mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+f_0(600)\gamma\gamma$	1	51
52	$e^+e^- \rightarrow e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma$	1	52
53	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma$	1	53
54	$e^{+}e^{-} \rightarrow \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma$	1	54
55	$e^+e^- \to \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma$	1	55
56	$e^+e^- \to \mu^+\mu^-\nu_\mu\nu_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-K^-n\bar{p}\gamma$	1	56
57	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\bar{n}p\gamma$	1	57
58	$e^{+}e^{-} \rightarrow \mu^{+}\mu^{-}\nu_{\mu}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\gamma$	1	58
59	$e^+e^- \to \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	59
60	$e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	60
61	$e^+e^- \rightarrow e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma$	1	61
62	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}f_{0}(600)\gamma\gamma\gamma\gamma\gamma$	1	62
63	$e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}p\bar{p}\gamma\gamma\gamma\gamma$	1	63
64	$e^+e^- \to e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma$	1	64
65	$e^{+}e^{-} \to e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	65
66	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}p\bar{p}\gamma$	1	66
67	$e^+e^- o \mu^+ u_\mu u_ auar u_ au\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma$	1	67
68	$e^{+}e^{-} \to K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma$	1	68
69	$e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma$	1	69
70	$e^+e^- \to e^+\nu_e\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma$	1	70
71	$e^{+}e^{-} \to e^{+}\nu_{e}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma$	1	71
72	$e^{+}e^{-} \rightarrow e^{-}e^{-}\bar{\nu}_{e}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}\gamma$	1	72
73	$e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}n\bar{p}\gamma\gamma\gamma\gamma$	1	73
74	$e^{+}e^{-} \to e^{+}e^{-}\nu_{e}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}\bar{n}pf_{0}(600)\gamma\gamma$	1	74
75	$e^{+}e^{-} \rightarrow \mu^{+}\nu_{\mu}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}K^{-}\gamma$	1	75
76	$e^{+}e^{-} \to \mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}K^{-}\gamma$	1	76
77	$e^{+}e^{-} \to K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma$	1	77
78	$e^+e^- \to e^-\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K_S\gamma$	1	78
79	$e^{+}e^{-} \to e^{+}e^{+}e^{-}\nu_{e}\nu_{e}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma$	1	79
80	$e^{+}e^{-} \to e^{+}\nu_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	80

index	event initial-final states	nEvts	nCmltEvts
81	$e^{+}e^{-} \to \mu^{+}\nu_{\mu}\nu_{\tau}\bar{\nu}_{\tau}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma$	1	81
82	$e^{+}e^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma$	1	82
83	$e^+e^- \to \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma$	1	83
84	$e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	84
85	$e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\gamma$	1	85
86	$e^{+}e^{-} \rightarrow e^{-}e^{-}\bar{\nu}_{e}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\bar{n}p\gamma$	1	86
87	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}\mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma$	1	87
88	$e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma$	1	88
89	$e^{+}e^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}p\bar{p}\gamma\gamma$	1	89
90	$e^+e^- \to \mu^+\nu_\mu\pi^+\pi^-\pi^-\pi^-\pi^-K^+\bar{n}pf_0(600)\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	90
91	$e^+e^- \to \mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma$	1	91
92	$e^+e^- \rightarrow e^+e^+e^-e^-\pi^+\pi^+\pi^-K^+K^-n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	92
93	$e^{+}e^{-} \to \mu^{+}\mu^{-}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}f_{0}(600)\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	93
94	$e^{+}e^{-} \to K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}f_{0}(600)\gamma\gamma$	1	94
95	$e^{+}e^{-} \rightarrow e^{+}e^{-}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma$	1	95
96	$e^{+}e^{-} \rightarrow e^{+}e^{-}\nu_{e}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}f_{0}(600)\gamma\gamma$	1	96
97	$e^+e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma$	1	97
98	$e^+e^- \rightarrow e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma$	1	98
99	$e^+e^- \rightarrow K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma$	1	99
100	$e^{+}e^{-} \rightarrow \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}K^{-}\gamma$	1	100
101	$e^+e^- \rightarrow e^+e^+e^-\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	101
102	$e^+e^- \to e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma$	1	102
103	$e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma$	1	103
104	$e^+e^- \to \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-\gamma$	1	104
105	$e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	105
106	$e^+e^- \to e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^- \pi^- K^+ K^- \gamma \gamma$	1	106
107	$e^{+}e^{-} \rightarrow e^{+}e^{-}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma$	1	107
108	$e^+e^- \rightarrow e^+e^-\mu^-\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma$	1	108
109	$e^+e^- \to \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma$	1	109
110	$e^+e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- p \bar{p} \gamma \gamma$	1	110
111	$e^+e^- \to \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- p \bar{p} \gamma \gamma$	1	111
112	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma$	1	112
113	$e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^-\pi^-\pi^-K^+n\bar{n}\gamma\gamma\gamma\gamma\gamma$	1	113
114	$e^+e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma$	1	114
115	$e^{+}e^{-} \to e^{-}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	115
116	$e^+e^- \to \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-\gamma$	1	116
117	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma$	1	117
118	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma$	1	118
119	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma$	1	119
120	$e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma\gamma$	1	120

index	event initial-final states	nEvts	nCmltEvts
121	$e^+e^- \rightarrow e^-\bar{\nu}_e\mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-K^-\gamma\gamma\gamma\gamma$	1	121
122	$e^+e^- \to \mu^+\nu_\mu K_L \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma$		122
123	$e^+e^- ightarrow e^-e^-ar{ u}_ear{ u}_e\mu^+ u_\mu\pi^+\pi^+\pi^-K^+K^-\gamma\gamma\gamma\gamma$	1	123
124	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}\nu_{\tau}\bar{\nu}_{\tau}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	124
125	$e^+e^- \rightarrow e^+e^-\mu^-\bar{\nu}_{\mu}K_LK_L\pi^+\pi^+\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	125
126	$e^+e^- \rightarrow e^+\nu_e\mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	126
127	$e^+e^- \to e^+e^-\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma$	1	127
128	$e^{+}e^{-} \to e^{+}e^{-}e^{-}\nu_{e}\bar{\nu}_{e}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}K^{-}K^{-}\gamma\gamma\gamma\gamma$	1	128
129	$e^{+}e^{-} \rightarrow e^{+}e^{-}\nu_{e}\bar{\nu}_{e}\nu_{\tau}\bar{\nu}_{\tau}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\gamma\gamma\gamma\gamma$	1	129
130	$e^+e^- \rightarrow e^+e^-e^-\nu_e\nu_e\bar{\nu}_e\pi^+\pi^+\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	130
131	$e^+e^- o K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma$	1	131
132	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{-}K^{-}\gamma\gamma\gamma\gamma$	1	132
133	$e^{+}e^{-} \rightarrow e^{+}e^{-}\nu_{e}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{+}K^{-}\gamma\gamma\gamma$	1	133
134	$e^+e^- o u_{ au} \bar{\nu}_{ au} K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma$	1	134
135	$e^+e^- \to \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	135
136	$e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}f_{0}(600)\gamma\gamma\gamma\gamma\gamma$	1	136
137	$e^{+}e^{-} \rightarrow e^{+}e^{-}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	137
138	$e^+e^- \to \pi^+\pi^+\pi^-\pi^-K^+K^-n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	138
139	$e^+e^- \rightarrow e^+\nu_e K_L \pi^+\pi^+\pi^-\pi^-K^+K^-p\bar{p}\gamma\gamma\gamma\gamma$	1	139
140	$e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	140
141	$e^+e^- \to e^-\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma$	1	141
142	$e^+e^- \to \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^+K^-K^-K^-\gamma$	1	142
143	$e^{+}e^{-} \rightarrow \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}K^{-}n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	143
144	$e^+e^- \to \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^- K^+ K^- K^- \gamma \gamma$	1	144
145	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	145
146	$e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	146
147	$e^{+}e^{-} \to K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma$	1	147
148	$e^{+}e^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	148
149	$e^+e^- \to \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma$	1	149
150	$e^{+}e^{-} \rightarrow \mu^{+}\nu_{\mu}\nu_{\tau}\bar{\nu}_{\tau}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma$	1	150
151	$e^{+}e^{-} \rightarrow e^{+}e^{-}\nu_{e}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma$	1	151
152	$e^{+}e^{-} \rightarrow e^{-}\nu_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}n\bar{p}\gamma$	1	152
153	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}\mu^{-}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	153
154	$e^{+}e^{-} \rightarrow \pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma$	1	154
155	$e^+e^- ightarrow e^-ar{ u}_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma$	1	155
156	$e^+e^- ightarrow\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	156
157	$e^+e^- \rightarrow e^+e^+\nu_e\nu_e\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	157
158	$e^{+}e^{-} \rightarrow \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-$	1	158
159	$e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}f_{0}(600)\gamma\gamma\gamma\gamma\gamma\gamma$	1	159
160	$e^+e^- \rightarrow e^+e^- \nu_e \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	1	160

index	event initial-final states		nCmltEvts
161	$e^+e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- f_0(600) \gamma \gamma$	1	161
162	$e^{+}e^{-} \rightarrow \mu^{+}\mu^{-}\nu_{\mu}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}K^{-}K^{-}\gamma$		162
163	$e^{+}e^{-} \to \mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	163
164	$e^+e^- \to \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-p\bar{p}\gamma$	1	164
165	$e^+e^- \to e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma$	1	165
166	$e^+e^- \to \mu^+\mu^-\nu_\mu\bar{\nu}_\mu K_L\pi^+\pi^+\pi^-K^-n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma$	1	166
167	$e^+e^- \to e^+e^-\nu_\tau\bar{\nu}_\tau\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma$	1	167
168	$e^{+}e^{-} \to K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}K^{-}\gamma$	1	168
169	$e^{+}e^{-} \to \pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}K^{-}\gamma$	1	169
170	$e^{+}e^{-} \to \mu^{+}\mu^{-}\nu_{\mu}\bar{\nu}_{\mu}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma\gamma\gamma\gamma\gamma$	1	170
171	$e^{+}e^{-} \rightarrow K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}n\bar{n}\gamma$	1	171
172	$e^+e^- o \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma$	1	172
173	$e^+e^- \to \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma$	1	173
174	$e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma$	1	174
175	$e^+e^- \to K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- K^- K^- \gamma \gamma$	1	175
176	$e^+e^- \to \nu_{\tau}\bar{\nu}_{\tau}\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	176
177	$e^+e^- \rightarrow e^- \bar{\nu}_e K_L K_L K_L \pi^+ \pi^+ \pi^- K^- \bar{n} p \gamma \gamma \gamma \gamma \gamma$	1	177
178	$e^+e^- \to K_L \pi^+ \pi^- K^+ K^- K^- \bar{n} p \gamma $	1	178
179	$e^{+}e^{-} \to e^{+}\nu_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{-}K^{-}K^{-}n\bar{n}\gamma\gamma$	1	179
180	$e^+e^- \to e^+\nu_e\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	180
181	$e^+e^- \to \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-p\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma$	1	181
182	$e^{+}e^{-} \to \mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma$	1	182
183	$e^+e^- \rightarrow e^+\nu_e K_L \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-K^-\gamma$	1	183
184	$e^+e^- \to \mu^+\nu_\mu\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+\gamma$	1	184
185	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{-}\pi^{-}n\bar{n}\gamma$	1	185
186	$e^+e^- \rightarrow e^+\nu_e K_L K_L \pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	186
187	$e^+e^- \to \mu^+\mu^+\mu^-\nu_\mu\nu_\mu\bar{\nu}_\mu K_L\pi^+\pi^+\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma$	1	187
188	$e^{+}e^{-} \to e^{+}\nu_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma$	1	188
189	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{-}\gamma$	1	189
190	$e^+e^- o K_L \pi^+ \pi^+ \pi^- \pi^- K^- \gamma \gamma$	1	190
191	$e^{+}e^{-} \to e^{+}\nu_{e}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}p\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma$	1	191
192	$e^+e^- \to e^+e^-\nu_e\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	192
193	$e^{+}e^{-} \to K_{L}K_{L}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{-}\gamma\gamma\gamma\gamma\gamma\gamma$	1	193
194	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}K^{-}\gamma$	1	194
195	$e^{+}e^{-} \rightarrow e^{+}\nu_{e}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\gamma$	1	195
196	$e^+e^- \rightarrow e^-e^-\bar{\nu}_e\bar{\nu}_e K_L K_L \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^- K^- n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	1	196
197	$e^{+}e^{-} \rightarrow e^{+}e^{+}e^{-}\nu_{e}\mu^{+}\nu_{\mu}\pi^{-}\pi^{-}\pi^{-}K^{+}n\bar{n}\gamma$	1	197
198	$e^+e^- \to K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ n \bar{n} \gamma \gamma \gamma \gamma \gamma$	1	198
199	$e^{+}e^{-} \to e^{-}\bar{\nu}_{e}\mu^{+}\nu_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}\pi^{-}K^{+}K^{+}\gamma$	1	199
200	$e^{+}e^{-} \rightarrow e^{-}\bar{\nu}_{e}\mu^{-}\bar{\nu}_{\mu}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+}\pi^{+$	1	200

Table 3: Signal particles.

index	signal particle	nPs	nCmltPs			
1	J/ψ	8	8			
2	ψ'	1	9			