

# Appendix A

**Table 5. Study details**

Reference	Episode	Design	Date/Season	Setting	Pollutants	Sampling Period	Quality
Coker et al. 2025 <sup>57</sup>	Wildfire	Analytical Cross Section	Jul–Oct 2022, May–Sep 2023	British Columbia, Canada  Licensed childcare facilities (n = 39), Long term residential care facilities (n = 5)	PM <sub>2.5</sub>	122 days for 2022, 153 days for 2023	High
Holder et al. 2025 <sup>38</sup>	Wildfire	Quasi-experimental	2019–2020	Missoula, Montana, USA  Church (n = 2), university (n = 2), office (n = 6), hotel (n = 1), fire station (n = 1), museum (n = 2), fitness centre (n = 7), childcare centre (n = 4), community centre (n = 3)	PM <sub>2.5</sub>	24-hour average, two fire seasons	High
Lee et al. 2024 <sup>25</sup>	Wildfire	Analytical Cross Section	Aug–Oct 2022	British Columbia, Canada  Licensed childcare facilities (n = 35)	PM <sub>2.5</sub> , CO <sub>2</sub>	66 days	High
Prathibha et al. 2024 <sup>50</sup>	Wildfire and RWC	Quasi-experimental	Wildfire (Sep–Oct 2021), RWC (Jan–Mar 2022) (Of note: wildfires were extinguished)	Hoopa, California, USA  Residential detached homes, (n = 8 wildfire smoke study, n = 11 RWC)	PM <sub>2.5</sub>	5–14 days per condition phase, each phase was sampled consecutively	High



Reference	Episode	Design	Date/Season	Setting	Pollutants	Sampling Period	Quality
			prior to data collection in the “wildfire” study; the “RWC” study captured open burning of trees felled during a storm)				
<b>Wheeler et al. 2024<sup>51</sup></b>	Wildfire (prescribed burns)	Quasi-experimental	Mar–2021	Semirural Victoria, Australia  Residential detached homes (n = 10), within 5 km of planned prescribed burns	PM <sub>2.5</sub>	1 to 20 days surrounding a prescribed burn	Moderate
<b>Lunderberg et al. 2023<sup>58</sup></b>	Wildfire	Analytical Cross Section	2021	USA  Residences (n = 3, 977), type not specified	PM <sub>2.5</sub>	2021	High
<b>Walker et al. 2023<sup>31</sup></b>	Wildfire	Cohort	July–Oct 2022	Missoula, Montana, USA  Residential detached homes (n = 14), multi-level apartment/condo (n = 2), other (n = 4)	PM <sub>2.5</sub>	117.7 days maximum per house	High
<b>Willis et al. 2023<sup>40</sup></b>	Wildfire	Quasi-experimental	Aug–Oct 2021	Butte, Montana, USA  2 comparable sized rooms in 3 public buildings	PM <sub>2.5</sub>	10–11 days	High



Reference	Episode	Design	Date/Season	Setting	Pollutants	Sampling Period	Quality
Burke et al. 2022 <sup>59</sup>	Wildfire	Analytical Cross Section	2011–2020	USA Residential homes (n = 1, 520)	PM <sub>2.5</sub>	All available data prior to 2020	High
Ghetu et al. 2022 <sup>15</sup>	Wildfire	Cohort	Aug–Nov, 2018–2020	Washington, Oregon, California, and Idaho, USA Residential detached homes (n = 15)	PAHs	Air sampling period 3–4 weeks through study duration, Aug–Nov, 2018–2020	High
He et al. 2022 <sup>37</sup>	Wildfire	Analytical Cross Section	Sep 10–21, 2020	Seattle, Washington, USA Residential detached homes (n = 4), apartment (n = 1), office building (n = 2)	PM <sub>2.5</sub>	11 days	Moderate
Montrose et al. 2022 <sup>33</sup>	Wildfire	Quasi-experimental	Jan 1–Dec 1, 2020	Idaho, USA Skilled nursing facilities (n = 4)	PM <sub>2.5</sub>	334 days (1326 days across all facilities, 90 wildfire days, 1159 non-wildfire days)	High
O’Dell et al. 2022 <sup>60</sup>	Wildfire	Analytical Cross Section	2020	Western USA Buildings and homes (n = 3175), type not specified	PM <sub>2.5</sub>	2020	High
Dev et al. 2021 <sup>34</sup>	Wildfire	Quasi-experimental	Jun 2015 and Aug 2017	Fairbanks, AK, USA University building, and residential detached houses (n=2)	Size-resolved and mass PM <sub>0.3-10</sub> concentrations	10 min, 10 replicate measurements per site	High



Reference	Episode	Design	Date/Season	Setting	Pollutants	Sampling Period	Quality
Liang et al. 2021 <sup>32</sup>	Wildfire	Cross-section	Nov 2018, Aug to Sep 2020	San Francisco, California, USA  1274 buildings analyzed, 1112 (87%) buildings were residential: houses (80%), condominiums or multi-family buildings (13%), and apartments (4%)	PM <sub>2.5</sub>	61 days	High
May et al. 2021 <sup>41</sup>	Wildfire	Quasi-experimental	Sep 13, 2020	Seattle, Washington, USA  Residential detached home (n = 1)	PM <sub>2.5</sub>	5 hours, 3.5 hours PAC on and 1.5 hours PAC off	Moderate
Mendoza et al. 2021 <sup>54</sup>	Wildfire	Quasi-experimental	Aug 23–24, 2018	Taylorsville, Utah, USA  Laboratory and office building	PM <sub>2.5</sub>	2 days (wildfire period)	High
Wheeler et al. 2021 <sup>42</sup>	Wildfire	Quasi-experimental	Aug–Nov, 2019	Port Macquarie, NSW, Australia  Library	PM <sub>2.5</sub>	53 days with PAC on and 41 days with PAC off, 140 hours with PAC on and 609 hours with PAC off analyzed	High
Xiang et al. 2021 <sup>43</sup>	Wildfire	Quasi-experimental	Sep 16–18, 2020	Seattle, Washington, USA  Residential detached homes (n = 5 PAC, n = 2 no filtration)	PM <sub>2.5</sub>	18–24 hours PAC on and 18–24 hours PAC off per house, 71 hours with PAC on and 65.5 hours of PAC off analyzed	High



Reference	Episode	Design	Date/Season	Setting	Pollutants	Sampling Period	Quality
<b>Stauffer et al. 2020<sup>44</sup></b>	Wildfire	Quasi-experimental	Aug–Sep 2018	Butte, Montana, USA University building	PM <sub>2.5</sub>	10 hours, 6-day (8:00 am–6:00 pm) and 8-night (8:00 pm–6:00 am) sampling periods completed for a total of n = 48-day hours and n = 64 hours	High
<b>Kaduwela et al. 2019<sup>24</sup></b>	Wildfire	Quasi-experimental	Oct–Nov, 2018	Albany, California, USA High school	PM number concentrations, CO <sub>2</sub>	7 days prior to fire, 7 days during fire	High
<b>Messier et al. 2019<sup>61</sup></b>	Wildfire	Analytical Cross Section	Aug 7–13, 2018	Eugene, Oregon, USA Type NR (n = 6)	PAHs	Air sampled every 24 hours for 7 days	High
<b>Reisen et al. 2019<sup>48</sup></b>	Wildfire and RWC	Quasi-experimental	2013–2015	Yarra Valley and Gippsland, Victoria, Australia Residential detached homes (n = 7)	PM <sub>2.5</sub>	2–14.5 hour sampling periods	High
<b>Shrestha et al. 2019<sup>26</sup></b>	Wildfire	Analytical Cross Section	Aug 17–Oct 10, 2016, Jun 28–Sep 12, 2017	Denver, Colorado, USA Residential detached homes (n = 28)	PM <sub>0.5-2.5</sub> number concentrations, BC, CO, NO <sub>2</sub>	2–7 days	High
<b>Barn et al. 2008<sup>36</sup></b>	Wildfire and RWC	RCT	Winter 2004 (RWC), Summer 2004–2005 (wildfire smoke)	RWC: Prince George, British Columbia, Canada; residential detached homes (n = 21) Wildfire smoke: Southern British Columbia, Canada;	PM <sub>2.5</sub>	48 hours, 24 hours PAC on and 24 hours PAC off	Moderate



Reference	Episode	Design	Date/Season	Setting	Pollutants	Sampling Period	Quality
				residential detached homes (n = 17)			
Henderson et al. 2005 <sup>52</sup>	Wildfire	Quasi-experimental	Oct 2021–Jul 2022	Colorado, USA 4 residential home pairs (n = 8)	PM <sub>2.5</sub>	24 hours per fire event	Moderate
Tham et al. 2021 <sup>45</sup>	Haze	Quasi-experimental	Oct 20, 2015	Singapore School building	PM <sub>10</sub> , PM <sub>2.5</sub> , PM <sub>1</sub>	3 hours	Moderate
Tran et al. 2021 <sup>19</sup>	Haze	Quasi-experimental	Aug–Sep 2019	Singapore Residential apartment	PM <sub>2.5</sub> , BC, Ions, WSTE	23 days for non-hazy days, 13 days for hazy days, 24-hour averages	High
Sharma et al. 2017 <sup>22</sup>	Haze	Quasi-experimental	Sep–Oct, 2015	Singapore Residential apartment	PM <sub>2.5</sub>	24 hours, for PAC condition, 12 hours with PAC on and 12 hours with PAC off	High
Cao et al. 2016 <sup>46</sup>	Haze	Quasi-experimental	Sep 17–25, 2015	Singapore University building	PM <sub>0.3-0.5</sub> , PM <sub>0.5-1.0</sub> , and PM <sub>1.0-2.5</sub>	9 days	High
Chen et al. 2016 <sup>62</sup>	Haze	Quasi-experimental	Haze: June 14–29, 2013, Clear sky: Aug 13–26 2013	Singapore University building	Size- and time-resolved PM <sub>0.01-10</sub> concentrations	14 days (Haze period)	High
Yang et al. 2024 <sup>63</sup>	RWC	Quasi-experimental	Jan 17 - Feb 25, 2022	Fairbanks, Alaska, USA Residential detached home (n=1)	PM <sub>2.5</sub> , and PM oxidative potential (OP)	24 hours	Moderate
Bravo-Linares et al. 2016 <sup>56</sup>	RWC	Analytical Cross Section	Winter, 2014–2015	Los Ríos Region, Chile Type NR (n=135)	PM <sub>2.5</sub> , PAHs	24 hours, 3 to 10 days of sampling	Moderate



Reference	Episode	Design	Date/Season	Setting	Pollutants	Sampling Period	Quality
Kajbafzadeh et al. 2015 <sup>35</sup>	RWC	RCT	Dec 2011–Aug 2012	Vancouver, British Columbia, Canada  Residential detached homes (n = 20)	PM <sub>2.5</sub> , levoglucosan	7 days	Moderate
Brown et al. 2014 <sup>64</sup>	RWC	Analytical Cross Section	Jan–Feb, 2009–2010	Connecticut, USA  Residential detached homes (n = 10)	PM <sub>0.5, 2.5</sub> number concentrations	Hourly, 3 days of sampling	High
Wheeler et al. 2014 <sup>28</sup>	RWC	RCT	Dec 2009–April 2010	Annapolis Valley, Nova Scotia, Canada  Residential detached homes (n = 31)	PM, PM <sub>2.5</sub> , levoglucosan	3 days, 1 day wood burning appliance on, 1 day PAC on, 1 day PAC off per house	High
Allen et al. 2011 <sup>29</sup>	RWC	RCT	Nov 2008–Apr 2009,	Smithers, British Columbia, Canada  Residential detached homes (n = 25)	PM <sub>2.5</sub> , levoglucosan	7 days	Moderate
Allen et al. 2009 <sup>55</sup>	RWC	Quasi-experimental	Nov 2007–Apr 2008	Smithers and Telkwa, British Columbia, Canada  Residential detached homes (n = 13), trailer (n = 2)	PM <sub>2.5</sub> , levoglucosan	6 days	High
Weaver et al. 2019 <sup>27</sup>	Biomass	Analytical Cross Section	Aug–Sep, Year NR	Mirpur, Dhaka, Bangladesh, India  NR (n = 44)	PM <sub>2.5</sub>	24 hours	Moderate



Reference	Episode	Design	Date/Season	Setting	Pollutants	Sampling Period	Quality
<b>Cristale et al. 2012</b> <sup>17</sup>	Biomass	Quasi-experimental	Aug 2007, Jan 2008	Araraquara, São Paulo, Brazil  Residential detached home (n = 1)	PAHs	8 hours per day, 25 days	Moderate
<b>Artinano et al. 2017</b> <sup>18</sup>	Landfill fire	Quasi-experimental	May 26 and Jun 3, 2016	Seseña, Toledo, Spain  School building	PM <sub>1</sub> number concentrations, BC, minerals, PAHs	24 hours	High

Abbreviations: **BC**: Black carbon, **PAH**: polycyclic aromatic hydrocarbons, **PM<sub>x-y</sub>**: particulate matter x-y µm in diameter, **RCT**: randomized controlled trial, **RWC**: residential wood combustion, **WSTE**: water soluble trace elements.

Note: Further summary details on data collection and sampling methods are available upon request.



# Appendix B

**Table 6. Indoor and outdoor pollutant concentrations during combustion-derived air pollution episodes**

Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
<b>Coker et al. 2025</b>	Wildfire	<p>2022 Wildfire Season: PM<sub>2.5</sub> median (IQR) (<math>\mu\text{g}/\text{m}^3</math>): 5.47 (3.26 to 11.14)</p> <p>2023 Wildfire Season: PM<sub>2.5</sub> median (IQR) (<math>\mu\text{g}/\text{m}^3</math>): 5.41 (3.30 to 10.34)</p> <p>Non-Wildfire Season: PM<sub>2.5</sub> median (IQR) (<math>\mu\text{g}/\text{m}^3</math>): 4.57 (2.16 to 9.61)</p>	<p>2022 Wildfire Season: PM<sub>2.5</sub> median (IQR) (<math>\mu\text{g}/\text{m}^3</math>): 4.48 (2.93 to 7.96)</p> <p>2023 Wildfire Season: PM<sub>2.5</sub> median (IQR) (<math>\mu\text{g}/\text{m}^3</math>): 4.40 (2.91 to 7.51)</p> <p>Non-Wildfire Season: PM<sub>2.5</sub> median (IQR) (<math>\mu\text{g}/\text{m}^3</math>): 4.31 (3.23 to 6.16)</p>	<p>2022 Wildfire Season: PM<sub>2.5</sub> median (IQR): 0.83 (0.60 to 1.12)</p> <p>2023 Wildfire Season: PM<sub>2.5</sub> median (IQR): 0.82 (0.60 to 1.11)</p> <p>Non-Wildfire Season: PM<sub>2.5</sub> median (IQR): 0.97 (0.58 to 1.73)</p>	NR
<b>Holder et al. 2025</b>	Wildfire	<p>2019 Season: PM<sub>2.5</sub> median (range) (<math>\mu\text{g}/\text{m}^3</math>): 12.54 (9.41 to 17.16)</p> <p>2020 Season: PM<sub>2.5</sub> median (range) (<math>\mu\text{g}/\text{m}^3</math>): 71.16 (64.39 to 82.97)</p>	<p>2019 Season: PM<sub>2.5</sub> median (range) (<math>\mu\text{g}/\text{m}^3</math>): 9.68 (4.91 to 11.64)</p> <p>2020 Season: PM<sub>2.5</sub> median (range) (<math>\mu\text{g}/\text{m}^3</math>): 39.2 (22.73 to 61.61)</p>	<p>2019 Season: PM<sub>2.5</sub> median (range): Building occupied 0.84 (0.56 to 1.12), Building unoccupied 0.75 (0.58, 1.14)</p> <p>2020 Season: PM<sub>2.5</sub> median (range): Building occupied 0.59 (0.28 to 0.76), unoccupied 0.60 (0.27, 0.88)</p>	NR
<b>Lee et al. 2024</b>	Wildfire	PM <sub>2.5</sub> median (range) ( $\mu\text{g}/\text{m}^3$ ): Wildfire days 20.7 (3.8 to 144.6), Non-wildfire days 6.3 (1.0–35.2)	PM <sub>2.5</sub> median (range) ( $\mu\text{g}/\text{m}^3$ ): Wildfire days 14.4 (3.1 to 54.1), Non-wildfire days 4.3 (1.0–26.0)	PM <sub>2.5</sub> median (range): Wildfire days 0.64 (0.17 to 1.45), Non-wildfire days 0.76 (0.13–3.17)	NR



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
			CO2 (ppm): Wildfire days 809.2, Non-wildfire days 689		
Prathibha et al. 2024	Wildfire and RWC	<p><b>Wildfire study</b> PM<sub>2.5</sub> mean ± SD (µg/m<sup>3</sup>): Baseline 9.1 ± 8.4, DIY PAC 5.0 ± 1.7, commercial PAC 5.8 ± 3.1</p> <p><b>Wood stove study</b> PM<sub>2.5</sub> Mean ± SD (µg/m<sup>3</sup>): Baseline 38.1 ± 24.4, DIY PAC 60.1 ± 35.3, commercial PAC 58.5 ± 38.5</p>	<p><b>Wildfire study</b> PM<sub>2.5</sub> mean ± SD (µg/m<sup>3</sup>): Baseline 14.0 ± 13.9, DIY PAC 10.5 ± 13, commercial PAC 10.5 ± 8.9</p> <p><b>Wood stove study</b> PM<sub>2.5</sub> Mean ± SD (µg/m<sup>3</sup>): Baseline 34.1 ± 63.9, DIY PAC 23.1 ± 17.9, commercial PAC 22.6 ± 19.7</p>	NR	<p><b>Wildfire study</b> PM<sub>2.5</sub> mean ± SD: Baseline 0.7 ± 0.2, DIY PAC 0.7 ± 0.2, commercial PAC 0.8 ± 0.2</p> <p><i>(Wildfire smoke exposure only during the baseline phase and was extinguished by rainfall)</i></p> <p><b>Wood stove study</b> PM<sub>2.5</sub> mean ± SD: Baseline 0.7 ± 0.2, DIY PAC 0.6 ± 0.2, commercial PAC 0.6 ± 0.2</p> <p><i>(Calculated from PM-indoor data with indoor peaks removed and PM-outdoor data)</i></p>
Wheeler et al. 2024	Wildfire (prescribed burns)	PM <sub>2.5</sub> (µg/m <sup>3</sup> ): No summary data provided, levels peaked at approximately 250	NR	NR	NR
Lunderberg et al. 2023	Wildfire	Median outdoor PM <sub>2.5</sub> concentrations increased to more than 20 µg/m <sup>3</sup>	Increased by about 4 µg/m <sup>3</sup> during a wildfire impacted month	NR	NR
Walker et al. 2023	Wildfire	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): wildfire period 36.8 ± 26.4, non-wildfire period 3.9 ± 3.0	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): wildfire period 15.9 ± 14.7, non-wildfire period 3.6 ± 5.2		PM <sub>2.5</sub> mean (95% CI): wildfire period 0.32 (0.28, 0.36), non-wildfire period



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
					0.39 (0.37, 0.42)  <i>(Calculated from I/O ratio with indoor peaks removed)</i>
Willis et al. 2023	Wildfire	PM <sub>2.5</sub> mean (µg/m <sup>3</sup> ): 1) Homeless shelter 42.17 2) Senior assisted living 44.79 3) School: 42.65	PM <sub>2.5</sub> mean (µg/m <sup>3</sup> ) 1) Homeless shelter: PAC 22.67, no PAC 31.52 2) Senior assisted living complex: PAC 21.95, no PAC 35.88 3) School: PAC 30.66, no PAC 37.20	PM <sub>2.5</sub> mean: 1) Homeless shelter: PAC 0.54, no PAC 0.75 2) Senior assisted living complex: PAC 0.49, no PAC 0.8 3) School: PAC 0.72, no PAC 0.87	NR
Burke et al. 2022	Wildfire	NR	No smoke: Median outdoor PM <sub>2.5</sub> concentrations (6 µg/m <sup>3</sup> ), infiltration declines by 0.0281 per 10 µg/m <sup>3</sup> increase in outdoor PM <sub>2.5</sub> (95% CI, -0.02925, -0.02810; P <0.001).  Smoke present: infiltration declines by 0.0209 per 10 µg/m <sup>3</sup> increase in outdoor PM <sub>2.5</sub> (95% CI, -0.02141, -0.02043; P <0.001)	NR	NR
Ghetu et al. 2022	Wildfire	Average outdoor vapour-phase LMW PAH concentrations were three times higher during wildfires than before (not significant)	Average indoor vapour-phase LMW PAH concentrations were three times higher during wildfires than before (not significant)	Indoor vapour-phase PAH concentrations were significantly higher than outdoor concentrations before wildfires (8/9)	NR



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
		Average outdoor vapour-phase HMW PAH concentrations were 86 times higher during wildfires than before (significant at most locations)	Average indoor vapour-phase HMW PAH concentrations were six times higher during wildfires than before (not significant)	locations), and significantly higher than outdoor concentrations at locations with an average AQI of less than 115 during wildfires  Outdoor HMW PAH concentrations exceeded indoor concentrations at locations with an average AQI exceeding 115	
He et al. 2022	Wildfire	PM <sub>2.5</sub> mean (µg/m <sup>3</sup> ): 108.8 PAC & HVAC, 112.9 no filtration	PM <sub>2.5</sub> mean (µg/m <sup>3</sup> ): 57.4 PAC & HVAC, 92 no filtration	PM <sub>2.5</sub> mean: 0.43 PAC & HVAC, 0.82 no filtration	NR
Montrose et al. 2022	Wildfire	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 56.1 ± 46.5 wildfire days, 4.9 ± 4.8 non-wildfire days	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 31.1 ± 32.3 wildfire days, 1.3 ± 1.9 non-wildfire days	PM <sub>2.5</sub> mean (µg/m <sup>3</sup> ): 0.56 wildfire days, 0.27 non-wildfire days	PM <sub>2.5</sub> mean (95% CI): 0.59 (0.49, 0.71) wildfire days, 0.29 (0.28, 0.30) non-wildfire days  <i>(Calculated from paired I/O ratio data with indoor peaks removed)</i>
O'Dell et al. 2022	Wildfire	PM <sub>2.5</sub> median (µg/m <sup>3</sup> ): Smoke Days: San Francisco - 21.37 Los Angeles - 24.4 Seattle & Portland - 23.54 Salt Lake City - 18.27 Denver - 16.69  Smoke-free Days	PM <sub>2.5</sub> median (µg/m <sup>3</sup> ): Smoke Days San Francisco - 8.87 Los Angeles - 10.88 Seattle & Portland - 6.8 Salt Lake City - 7.58 Denver - 9.88  Smoke-free Days	PM <sub>2.5</sub> : Smoke Days San Francisco - 0.39 Los Angeles - 0.44 Seattle & Portland - 0.17 Salt Lake City - 0.43 Denver - 0.58  Smoke-free Days	NR



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
		San Francisco - 5.22 Los Angeles - 7.09 Seattle & Portland - 4.07 Salt Lake City - 4.91 Denver - 5.15	San Francisco - 4.83 Los Angeles - 5.29 Seattle & Portland - 4.52 Salt Lake City - 4.65 Denver - 5.51  Median indoor $PM_{2.5}$ 82% (IQR: 43%–135%) or 4.3 $\mu\text{g}/\text{m}^3$ (IQR: 2.0–7.2 $\mu\text{g}/\text{m}^3$ ) higher on smoke-impacted days	San Francisco - 0.95 Los Angeles - 0.81 Seattle & Portland - 1.2 Salt Lake City - 0.93 Denver - 1.0	
Dev et al. 2021	Wildfire	$PM_{0.3-10}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ) 1) University: wildfire period 90.8 $\pm$ 13.32, non-wildfire period 8.3 2) House A: wildfire period 114.15 $\pm$ 8.85, non-wildfire period 6.3 3) House B: wildfire period 59.1 $\pm$ 9.2, non-wildfire period 5.1  $PM_{0.3-10}$ number concentration mean $\pm$ SD (number/ $\text{cm}^3$ ) 1) University: wildfire period 1589.9 $\pm$ 202.2, non-wildfire period 8.3 $\pm$ 0.71 2) House A: wildfire period 1583.6 $\pm$ 16.35, non-wildfire period 6.5 $\pm$ 0.39 3) House B: wildfire period	$PM_{0.3-10}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ) 1) University: wildfire period 33.5 $\pm$ 1.08, non-wildfire period 11.7 2) House A: wildfire period 16.7 $\pm$ 2.54, non-wildfire period 5.5 3) House B: wildfire period 26.1 $\pm$ 1.78, non-wildfire period 4.4  $PM_{0.3-10}$ number concentration mean $\pm$ SD (number/ $\text{cm}^3$ ) 1) University: wildfire period 1195.1 $\pm$ 19.9, non-wildfire period 8.02 $\pm$ 1.04 2) House A: wildfire period 206.9 $\pm$ 3.71, non-wildfire period 10.6 $\pm$ 0.55 3) House B: wildfire period	$PM_{0.3-10}$ mean $\pm$ SD 1) University: wildfire period 0.37 $\pm$ 0.06, non-wildfire period 1.7 $\pm$ 0.3 2) House A: wildfire period 0.14 $\pm$ 0.01, non-wildfire period 0.6 $\pm$ 0.37 3) House B: wildfire period 0.44 $\pm$ 0.04, non-wildfire period 1 $\pm$ 0.96  $PM_{0.3-10}$ number concentration mean $\pm$ SD 1) University: wildfire period 0.76 $\pm$ 0.11, non-wildfire period 1 $\pm$ 0.17 2) House A: wildfire period 0.13 $\pm$ 0.001, non-wildfire period 1.6 $\pm$ 0.18 3) House B: wildfire period	NR



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
		1184.8 ± 24.2, non-wildfire period 5.3 ± 0.3	721.7 ± 13.49, non-wildfire period 6.8 ± 0.39	0.61 ± 0.02, non-wildfire period 1.3 ± 0.03	
<b>Liang et al. 2021</b>	Wildfire	Non-fire days: PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 9.1 ± 4.0  Fire days: PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 45.4 ± 17.0	Non-fire days: PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 4.1 ± 2.5  Fire days: PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 11.1 ± 8.3	Non-fire days: PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 0.9 ± 0.88  Fire days: PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 0.41 ± 0.44	Non-fire days: PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 0.45 ± 0.15  Fire days: PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 0.27 ± 0.14
<b>May et al. 2021</b>	Wildfire	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 127 ± 9	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ) 1) Room A: PAC on 28 ± 2, PAC off 64 ± 2 2) Room B: PAC on 0.4 ± 0.4, PAC off 40 ± 2	PM <sub>2.5</sub> mean 1) Room A: PAC on 0.22, PAC off 0.50 2) Room B: PAC on 0.003, PAC off 0.31	NR
<b>Mendoza et al. 2021</b>	Wildfire	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): no summary data reported	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): no summary data reported	I/O ratio of readings significant (p < 0.001), Indoor concentration 78% of outdoor during wildfire, 29% during normal weekday	NR
<b>Wheeler et al. 2021</b>	Wildfire	PM <sub>2.5</sub> median (25%–75%) (µg/m <sup>3</sup> ): PACs on 23.3 (12.0–49.1), PACs off 30.7 (12.2–85.9)	PM <sub>2.5</sub> median (25%–75%) (µg/m <sup>3</sup> ): PACs on 5.7 (5.5–8.5), PACs off 20.0 (10.5–39.0)	NR	$F_{inf}$ PM <sub>2.5</sub> median (25%–75%) (µg/m <sup>3</sup> ): PACs on 0.17, PACs off 0.32  Calculated from paired I/O data with indoor peaks removed
<b>Xiang et al. 2021</b>	Wildfire	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): 64 ± 17	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): PAC 14 ± 7, PAC off 47 ± 24	NR	PM <sub>2.5</sub> mean ± SD: PAC 0.19 ± 0.09, PAC off 0.56 ± 0.13



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
					<i>(Estimated based on <math>PM_{2.5}</math> mass balance models)</i>
Stauffer et al. 2020	Wildfire	$PM_{2.5}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): 17.47 $\pm$ 13.07	$PM_{2.5}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ) Daytime: PAC on 2.95 $\pm$ 2.39, PAC off 11.09 $\pm$ 9.70 Nighttime: PAC on 0.50 $\pm$ 0.39, PAC off 6.55 $\pm$ 7.10	NR	NR
Kaduwela et al. 2019	Wildfire	PM number concentration: no summary data reported  CO <sub>2</sub> (ppm): no summary data reported	PM number concentration: no summary data reported  CO <sub>2</sub> (ppm): no summary data reported	NR	NR
Messier et al. 2019	Wildfire	No summary data reported	No summary data reported	I/O ratios not reported, indoor median and maximum concentrations $\geq$ than outdoor for most individual PAHs	NR
Reisen et al. 2019	Wildfire and RWC	Prescribed Burns: $PM_{2.5}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): 101.5 $\pm$ 83.28  RWC: $PM_{2.5}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): 18.54 $\pm$ 6.46	Prescribed Burns: $PM_{2.5}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): 73.35 $\pm$ 66.75  RWC: $PM_{2.5}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): 9.06 $\pm$ 3.09	Median $PM_{2.5}$ I/O range: 0.13 to 2.9	Prescribed Burns: $PM_{2.5}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): 0.58 $\pm$ 0.19  RWC: $PM_{2.5}$ mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): 0.30 $\pm$ 0.13
Shrestha et al. 2019	Wildfire	$PM_{0.5-2.5}$ median (range) ( $\#/ \text{cm}^3$ ) Wildfire plume density: none 3.36 (0.240–224), low 4.81 (0.650–58.3), medium 7.49 (0.750–168), high 24.9 (8.44–	$PN_{0.5-2.5}$ median (range) ( $\#/ \text{cm}^3$ ) Wildfire plume density: none 2.15 (0.140–44.8), low 3.25 (0.280–52.4), medium 6.42 (0.710–563), high 9.85	$PN_{0.5-2.5}$ median (range) ( $\#/ \text{cm}^3$ ) Wildfire plume density: none 0.81, low 0.80, medium 1.06, high 0.80	$PN_{0.5-2.5}$ median (range) ( $\#/ \text{cm}^3$ ) Wildfire plume density: none 0.64, low 0.68, medium 0.86, high 0.40



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
		<p>165)</p> <p>BC median (range) (<math>\text{ng}/\text{m}^3</math>) Wildfire plume density: none 590 (98.3–6900), low 745 (97.0–8280), medium 857 (54.5–39100), high 948 (176–21500)</p> <p>CO median (range) (ppm) Wildfire plume density: none 0.224 (0–4.10), low 0.206 (0–14.0), medium 0.253 (0–1.90), high 0.278 (0–2.80)</p> <p><math>\text{NO}_2</math> median (range) (ppb) Wildfire plume density: none 5.56 (4.48–9.24), low 9.60 (6.55–11.1), medium 9.39 (7.19–10.2), high 12.9 (5.21–20.6)</p>	<p>(4.08–30.4)</p> <p>BC median (range) (<math>\text{ng}/\text{m}^3</math>) Wildfire plume density: none 422 (82.3–3490) low 568 (144–4700), medium 632 (83.3–5080), high 495 (98.3–4320)</p> <p>CO median (range) (ppm) Wildfire plume density: none 0.526 (0–3.23), low 0.605 (0–10.5), medium 0.528 (0–5.30), high 0.88 (0.26–4.46)</p> <p><math>\text{NO}_2</math> median (range) (ppb) Wildfire plume density: none 6.39 (3.58–10.1), low 11.8 (8.00–13.8), medium 8.96 (6.48–11.9), high 10.1 (6.73–13.4)</p>	<p>BC median (range) (<math>\text{ng}/\text{m}^3</math>) Wildfire plume density: none 0.72, low 0.76, medium 0.75, high 0.57</p> <p>CO median (range) (ppm) Wildfire plume density: none 5.01, low 3.96, medium 2.70, high 4.13</p> <p><math>\text{NO}_2</math> median (range) (ppb) Wildfire plume density: none 1.18, low 1.03, medium 1.17, high 1.01</p>	<p>BC median (range) (<math>\text{ng}/\text{m}^3</math>) Wildfire plume density: none 0.72, low 0.80, medium 0.74, high 0.52</p> <p>CO median (range) (ppm) Wildfire plume density: none 2.35, low 2.94, medium 2.09, high 3.17</p> <p><math>\text{NO}_2</math> median (range) (ppb) Wildfire plume density: none 1.14, low 1.22, medium 0.96, high 0.78</p> <p><i>(Calculated from I/O ratio with indoor peaks removed)</i></p>
<b>Barn et al. 2008</b>	Wildfire and RWC	<p><b>Wildfire smoke</b> <math>\text{PM}_{2.5}</math> mean <math>\pm</math> SD (<math>\mu\text{g}/\text{m}^3</math>): PAC on <math>11.4 \pm 10.0</math>, PAC off <math>10.6 \pm 6.8</math></p> <p><b>RWC</b> <math>\text{PM}_{2.5}</math> mean <math>\pm</math> SD (<math>\mu\text{g}/\text{m}^3</math>): PAC on <math>18.7 \pm 19.4</math>, PAC off <math>16.2 \pm 14.2</math></p>	<p><b>Wildfire smoke</b> <math>\text{PM}_{2.5}</math> mean <math>\pm</math> SD (<math>\mu\text{g}/\text{m}^3</math>): PAC on <math>4.9 \pm 1.6</math>, PAC off <math>8.2 \pm 5.0</math></p> <p><b>RWC</b> <math>\text{PM}_{2.5}</math> mean <math>\pm</math> SD (<math>\mu\text{g}/\text{m}^3</math>): PAC on <math>3.9 \pm 8.6</math>, PAC off <math>5.8 \pm 7.0</math></p>	NR	<p><b>Wildfire smoke</b> <math>\text{PM}_{2.5}</math> mean <math>\pm</math> SD: PAC on <math>0.19 \pm 0.2</math>, PAC off <math>0.61 \pm 0.27</math></p> <p><b>RWC</b> <math>\text{PM}_{2.5}</math> mean <math>\pm</math> SD: PAC on <math>0.10 \pm 0.08</math>, PAC off <math>0.28 \pm 0.18</math></p> <p><i>(Calculated from paired I/O)</i></p>



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
					<i>data with indoor peaks removed)</i>
Henderson et al. 2005	Wildfire	<p>PM<sub>2.5</sub> mean (<math>\mu\text{g}/\text{m}^3</math>):</p> <p><b>Prescribed burn:</b> House 1 (PAC): 21.7 House 2: 37.5</p> <p><b>Snaking wildfire:</b> House 1 (PAC): 7.52 House 2: 5.54</p> <p><b>Schnoover wildfire:</b> House 1 (PAC): 20.7 House 2: 19.6</p> <p><b>Hayman wildfire:</b> House 1 (PAC): 32.7 House 2: 32.9</p>	<p>PM<sub>2.5</sub> mean (<math>\mu\text{g}/\text{m}^3</math>):</p> <p><b>Prescribed burn:</b> House 1 (PAC): 2.0 House 2: 21.8</p> <p><b>Snaking wildfire:</b> House 1 (PAC) 2.61 House 2: 5.16</p> <p><b>Schnoover wildfire:</b> House 1 (PAC): 1.43 House 2: 11.4</p> <p><b>Hayman wildfire:</b> House 1 (PAC) 3.02 House 2: 24.5</p>	<p>PM<sub>2.5</sub> mean:</p> <p><b>Prescribed burn:</b> House 1 (PAC): 0.09 House 2: 0.85</p> <p><b>Snaking wildfire:</b> House 1 (PAC): 0.35 House 2: 0.93</p> <p><b>Schnoover wildfire:</b> House 1 (PAC): 0.06 House 2: 0.58</p> <p><b>Hayman wildfire:</b> House 1 (PAC): 0.09 House 2: 0.74</p>	NR
Tham et al. 2021	Haze	<p>PM<sub>10</sub> mean (<math>\mu\text{g}/\text{m}^3</math>): 110</p> <p>PM<sub>2.5</sub> mean (<math>\mu\text{g}/\text{m}^3</math>): 85</p> <p>PM<sub>1</sub> mean (<math>\mu\text{g}/\text{m}^3</math>): 70</p>	<p>PM<sub>10</sub> mean (<math>\mu\text{g}/\text{m}^3</math>): 66</p> <p>PM<sub>2.5</sub> mean (<math>\mu\text{g}/\text{m}^3</math>): 58</p> <p>PM<sub>1</sub> mean (<math>\mu\text{g}/\text{m}^3</math>): 40</p>	<p>PM<sub>10</sub>: FFU 0.05, control room 0.50</p> <p>PM<sub>2.5</sub>: FFU 0.06, control room 0.49</p> <p>PM<sub>1</sub>: FFU 0.07, control room 0.47</p>	<p><math>F_{inf}</math> PM<sub>10</sub>: FFU 0.06, control room 0.20</p> <p><math>F_{inf}</math> PM<sub>2.5</sub>: FFU 0.08, control room 0.29</p> <p><math>F_{inf}</math> PM<sub>1</sub>: FFU 0.11, control room 0.30</p> <p><i>(Estimated based on PM<sub>2.5</sub> mass balance models)</i></p>
Tran et al. 2021	Haze	<p>PM<sub>2.5</sub> mean <math>\pm</math> SD (<math>\mu\text{g}/\text{m}^3</math>): Hazy days: PAC 60.93 <math>\pm</math> 5.65, AC 37.22 <math>\pm</math> 10.62, NV 49.78 <math>\pm</math> 8.84 Non-hazy days: PAC 25.26 <math>\pm</math></p>	<p>PM<sub>2.5</sub> mean <math>\pm</math> SD (<math>\mu\text{g}/\text{m}^3</math>): Hazy days: PAC 15.12 <math>\pm</math> 3.79, AC 26.80 <math>\pm</math> 7.64, NV 48.93 <math>\pm</math> 9.72 Non-hazy days: PAC 5.26 <math>\pm</math></p>	<p>PM<sub>2.5</sub> mean <math>\pm</math> SD: Hazy days: PAC 0.25, AC 0.72, NV 0.98 Non-hazy days: PAC 0.21, AC 0.63, NV 0.99</p>	NR



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
		5.14, AC 25.48 ± 6.44, NV 25.77 ± 2.71  BC mean ± SD ( $\mu\text{g}/\text{m}^3$ ): Hazy days: PAC 5.99 ± 2.01, AC 4.95 ± 1.78, NV 4.55 ± 1.76 Non-hazy days: PAC 3.86 ± 1.82, AC 3.94 ± 2.21, NV 4.01 ± 1.84  Total Ions mean ( $\mu\text{g}/\text{m}^3$ ): Hazy days: PAC 18.96, AC 13.71, NV 14.93 Non-hazy days: PAC 8.89, AC 7.26, NV 9.47  Total WSTE mean ( $\mu\text{g}/\text{m}^3$ ): Hazy days: PAC 2.24, AC 1.79, NV 1.84 Non-hazy days: PAC 0.96, AC 0.68, NV 0.95	1.36, AC 16.07 ± 2.90, NV 25.42 ± 2.70  BC mean ± SD ( $\mu\text{g}/\text{m}^3$ ): Hazy days: PAC 0.90 ± 0.34, AC 2.97 ± 1.07, NV 4.40 ± 1.24 Non-hazy days: PAC 0.83 ± 0.18, AC 2.43 ± 0.68, NV 3.85 ± 1.31  Total Ions mean ( $\mu\text{g}/\text{m}^3$ ): Hazy days: PAC 3.91, AC 9.68, NV 14.98 Non-hazy days: PAC 0.86, AC 3.97, NV 8.77  Total WSTE mean ( $\mu\text{g}/\text{m}^3$ ): Hazy days: PAC 0.21, AC 0.70, NV 1.53 Non-hazy days: PAC 0.06, AC 0.29, NV 0.75	BC mean ± SD: Hazy days: PAC 0.15, AC 0.60, NV 0.97 Non-hazy days: PAC 0.22, AC 0.62, NV 0.96  Total Ions mean: Hazy days: PAC 0.21, AC 0.71, NV 1.00 Non-hazy days: PAC 0.1, AC 0.55, NV 0.93  Total WSTE mean: Hazy days: PAC 0.07, AC 0.42, NV 0.79 Non-hazy days: PAC 0.21, AC 0.51, NV 0.99	
<b>Sharma et al. 2017</b>	Haze	PM <sub>2.5</sub> mean ± SD ( $\mu\text{g}/\text{m}^3$ ) PAC 72, Windows closed 157 ± 107, Windows open 94 ± 34	PM <sub>2.5</sub> mean ± SD ( $\mu\text{g}/\text{m}^3$ ) PAC 23, Windows closed 98 ± 54, Windows open 71 ± 20	PM <sub>2.5</sub> mean ± SD PAC 0.32, Windows closed 0.62, Windows open 0.76	NR
<b>Cao et al. 2016</b>	Haze	PM <sub>2.5</sub> mean ( $\mu\text{g}/\text{m}^3$ ): 88	PM <sub>2.5</sub> range ( $\mu\text{g}/\text{m}^3$ ): Control: ~32 to ~130	PM <sub>0.3-0.5</sub> particle concentration mean: Control: 0.62, F25: 0.65, F65: 0.43, F85: 0.24, F95 0.21	NR



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
				<p>PM<sub>0.5-1.0</sub> particle concentration mean: Control: 0.40, F25: 0.39, F65: 0.25, F85: 0.13, F95: 0.13</p> <p>PM<sub>1.0-2.5</sub> particle concentration mean: Control: 0.2, F25: 0.19, F65: 0.15, F85: 0.06, F95: 0.06</p>	
<b>Chen et al. 2016</b>	Haze	PM <sub>2.5</sub> mean ( $\mu\text{g}/\text{m}^3$ ): 96	PM <sub>0.3-1.0</sub> particle volume concentration mean ( $\mu\text{g}/\text{cm}^3$ ): Hazy: 43.6, Clear sky: 4.8	PM <sub>0.3</sub> particle concentration mean: ACMV on 0.59, ACMV off 0.64	NR
<b>Yang et al. 2024</b>	RWC	PM <sub>2.5</sub> : No summary data reported  OP mass-normalized: No summary data reported	PM <sub>2.5</sub> mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): 2.45 $\pm$ 0.58  OP mass-normalized mean $\pm$ SD (pmol/min/ $\mu\text{g}$ ): 19.2 $\pm$ 16.5	OP mass-normalized mean $\pm$ SD: 0.53 $\pm$ 0.37	NR
<b>Bravo-Linares et al. 2016</b>	RWC	PM <sub>2.5</sub> mean (range) ( $\mu\text{g}/\text{m}^3$ ): 85 (5, 367)  PAH mean (range) ( $\text{ng}/\text{m}^3$ ): 71 (3, 365)	PM <sub>2.5</sub> mean (range) ( $\mu\text{g}/\text{m}^3$ ): 72 (6, 194)  PAH mean (range) ( $\text{ng}/\text{m}^3$ ): 51 (2, 291)	PM <sub>2.5</sub> regression: I/O 0.44, R <sup>2</sup> = 0.48	NR
<b>Kajbafzadeh et al. 2015</b>	RWC	PM <sub>2.5</sub> mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): PAC on 3.9 $\pm$ 2.1, placebo 5.0 $\pm$ 2.5  Levogluconan mean $\pm$ SD	PM <sub>2.5</sub> mean $\pm$ SD ( $\mu\text{g}/\text{m}^3$ ): PAC on 3.4 $\pm$ 1.9, placebo 6.5 $\pm$ 2.7	PM <sub>2.5</sub> mean $\pm$ SD: PAC on 0.87 $\pm$ 0.77, placebo 1.3 $\pm$ 0.65	NR



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
		(ng/m <sup>3</sup> ): PAC on 20.6 ± 19.9, placebo 13.2 ± 13.5	Levoglucon mean ± SD (ng/m <sup>3</sup> ): PAC on 11.8 ± 14.4, placebo 29.3 ± 67.1		
<b>Brown et al. 2014</b>	RWC	NR	PM <sub>0.5</sub> mean ± SD (#/cm <sup>3</sup> ): OWF homes 0.302 ± 0.305, control homes 0.0718 ± 0.077  PM <sub>2.5</sub> mean ± SD (#/cm <sup>3</sup> ): OWF homes 6.58 ± 4.85, control homes 1.91 ± 2.40	NR	NR
<b>Wheeler et al. 2014</b>	RWC	PM median (range) (µg/m <sup>3</sup> ): PAC on 7.66 (0.91, 65.28), placebo 5.9 (0.51, 35.66)  PM <sub>2.5</sub> median (range) (µg/m <sup>3</sup> ): PAC on 2.51 (0.42, 22.6), placebo 3.67 (0.34, 115.97)  Levoglucon median (range) (ng/m <sup>3</sup> ): PAC on 0.169 (0.055, 3.258), placebo 0.096 (0.021, 1.458)	PM median (range) (µg/m <sup>3</sup> ): PAC on 3.17 (0.9, 21.26), placebo 8.58 (2.6, 64.42)  PM <sub>2.5</sub> median (range) (µg/m <sup>3</sup> ): PAC on 1.92 (0.35, 11.28), placebo 3.87 (0.37, 30.19)  Levoglucon median (range) (ng/m <sup>3</sup> ): PAC on 0.034 (ND, 0.189), placebo 0.050 (ND, 0.448)	PM median (range): PAC on 0.42 (0.08, 2.29), placebo 1.42 (0.24, 19.72)  PM <sub>2.5</sub> median (range): PAC on 0.63 (0.08, 5.78), placebo 1.2 (0.03, 24.0)  Levoglucon median (range): PAC on 0.17 (0.00, 0.77), placebo 0.36 (0.00, 14.62)	$F_{inf}$ PM median (range): PAC on 0.26 (0.07, 0.84), placebo 0.56 (0.16, 1.00)  <i>(Calculated from I/O ratio with indoor peaks removed)</i>
<b>Allen et al. 2011</b>	RWC	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): PAC on 9.8 ± 4.2, placebo 10.8 ± 4.2  Levoglucon mean ± SD (ng/m <sup>3</sup> ): PAC on 530 ± 358, placebo 613 ± 548	PM <sub>2.5</sub> mean ± SD (µg/m <sup>3</sup> ): PAC on 4.6 ± 2.6, placebo 11.2 ± 6.1  Levoglucon mean ± SD (ng/m <sup>3</sup> ): PAC on 33 ± 39, placebo 127 ± 191	NR	PM <sub>2.5</sub> mean ± SD: PAC on 0.2 ± 0.17, placebo 0.34 ± 0.17  <i>(Estimated based on PM<sub>2.5</sub> mass balance models)</i>



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
<b>Allen et al. 2009</b>	RWC	<p>PM<sub>2.5</sub> range (5 to 95 percentiles) (<math>\mu\text{g}/\text{m}^3</math>): pre-exchange ~5 to 50, post-exchange ~5 to 18</p> <p>Levogluconan range (5 to 95 percentiles) (<math>\text{ng}/\text{m}^3</math>): pre-exchange ~200 to 2500, post-exchange ~50 to 1500</p>	<p>Indoor PM<sub>2.5</sub> median (<math>\mu\text{g}/\text{m}^3</math>): pre-exchange 12.8, and post-exchange 12.2 <math>\mu\text{g}/\text{m}^3</math></p> <p>Levogluconan median (<math>\text{ng}/\text{m}^3</math>): pre-exchange 113, post-exchange 109</p>	NR	$F_{inf}$ PM <sub>2.5</sub> mean $\pm$ SD: pre-exchange $0.32 \pm 0.17$ , post-exchange sampling $0.33 \pm 0.11$
<b>Weaver et al. 2019</b>	Biomass	<p>PM<sub>2.5</sub> mean <math>\pm</math> SD (<math>\mu\text{g}/\text{m}^3</math>): <math>57.1 \pm 19.9</math></p> <p>CO mean <math>\pm</math> SD (ppm): <math>0.006 \pm 0.008</math></p>	<p>PM<sub>2.5</sub> mean <math>\pm</math> SD (<math>\mu\text{g}/\text{m}^3</math>): Index home (stove) <math>51.9 \pm 16.8</math>, neighbour home <math>47.5 \pm 14.9</math></p> <p>CO mean <math>\pm</math> SD (ppm): Index home (stove) <math>0.03 \pm 0.04</math>, neighbour home <math>0.006 \pm 0.01</math></p>	NR	NR
<b>Cristale et al. 2012</b>	Biomass	NR	<p>Total PAHs mean (range) (<math>\text{ng}/\text{m}^3</math>)</p> <p>Harvest season: 22.9 (4.82 - 44.8), Non-harvest season: 2.35 (0.79–5.53)</p>	NR	NR
<b>Artinano et al. 2017</b>	Landfill fire	<p>PM<sub>1</sub> number concentrations maximum (<math>\#/ \text{cm}^3</math>): <math>3.8 \times 10^5</math></p> <p>BC maximum (<math>\mu\text{g}/\text{m}^3</math>): ~4</p> <p>Total minerals mean (<math>\mu\text{g}/\text{m}^3</math>): 5639</p>	<p>PM<sub>1</sub> number concentrations maximum (<math>\#/ \text{cm}^3</math>): <math>3.9 \times 10^4</math></p> <p>BC maximum (<math>\mu\text{g}/\text{m}^3</math>): 1.8</p> <p>Total minerals mean (<math>\mu\text{g}/\text{m}^3</math>): 3075</p>	NR	NR



Reference	Episode	Outdoor pollutant levels	Indoor pollutant levels	Indoor/Outdoor ratios	Infiltration factor ( $F_{inf}$ )
		Total PAHs maximum ( $\mu\text{g}/\text{m}^3$ ): 0.13	Total PAHs maximum ( $\mu\text{g}/\text{m}^3$ ): 0.02		

Abbreviations: **AC**: air-conditioning, **ACMV**: air-conditioning and mechanical ventilation, **AQI**: air quality index, **BC**: black carbon, **F25, F65, F85, and F95**: filters with dust-spot efficiencies of 25%, 65%, 85% and 95%, **FFU**: fan filter unit, **HMW**: high molecular weight, **LMW**: low molecular weight, **NR**: not reported, **NV**: naturally ventilated, **OP**: oxidative potential, **OWF**: outdoor wood furnaces, **PM<sub>x-y</sub>**: particulate matter x-y  $\mu\text{m}$  in diameter; **PN**: particle number, **RWC**: residential wood combustion, **WSTE**: water soluble trace elements.

